

American Aviation

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The Independent
Voice of
American Aeronautics

15c A Copy

Vol. 3 No. 17

Published Twice a Month

February 1, 1940

\$3.00 a Year

Fortnightly
Review

Liberated

WITH no desire to rattle the bones in the National Aeronautic Association's dark closet, nor reflect unfavorably upon N.A.A.'s office personnel during the last five years, we join those who acclaim with joy the liberation of that storm-tossed institution.

Organized nearly a score of years ago to encourage and represent public interest in the science of flight, it became the victim of a muscling-in movement by a group of lower case politicians shortly after the present national administration took office. This clique thought it was doing the New Deal a service, after the air mail cancellation episode, by quietly dominating N.A.A. in every state of the Union so that the development of any sentiment adverse to the administration might be prevented.

In fact the preventative efforts were carried so far that a negative do-nothing policy developed to the detriment of aviation progress and to the delusion of hundreds of sincere and patriotic citizens throughout the country who thought they were participants in the field of a strong national organization with an active and powerful voice in Washington.

The reputation of N.A.A. has suffered much damage because of this clique influence during recent years, the story of which would make interesting reading but which would serve no constructive purpose in telling now that the long-anticipated liberation finally has taken place. There are some who believe the N.A.A. cannot stage a come-back. We wish to be counted among those who hope that the leadership of Gill Wilson and "Mike" Kilner can give

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DOOLITTLE HEADS INSTITUTE IN '40

Aviation Director for Shell Companies Succeeds Dr. George W. Lewis

Maj. James H. (Jimmie) Doolittle, aviation director of the Shell Oil companies in the U. S., was elected president of the Institute of the Aeronautical Sciences for 1940 to succeed Dr. George W. Lewis, director of research of the National Advisory Committee for Aeronautics, at a meeting of the institute's council held on Jan. 18.

Other officers elected are: Executive vice-president—Maj. Lester D. Gardner; Vice-presidents—W. A. M. Burden, North American Aviation Inc., New York; Sherman M. Fairchild, chairman of Fairchild Aviation Corp., New York; R. H. Fleet, president of Consolidated Aircraft Corp., San Diego, Cal.; H. J. E. Reid, engineer in charge, NACA, Langley Field, Va.; Treasurer—Leroy R. Grumman, president of Grumman Aircraft Engineering Corp., Bethpage, N. Y.; Secretary—C. E. Sinclair.

Maj. Doolittle, one of the foremost aeronautical engineers in the U. S.

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CAA to Install 10 Instrument Landing Systems for Testing

Installation of instrument landing systems at approximately 10 important U. S. airports is to begin in the near future, and the CAA has announced that it will ask bids for the equipment within the next few weeks.

The CAA program, which calls for extended service testing of the equipment at the 10 stations, has been endorsed by a special committee set up by the National Academy of Sciences at the request of President Roosevelt.

Where installations will be made has not been determined. Proper functioning of the equipment, the CAA states, requires at least one runway of considerable length with approach path clear of obstacles for several miles. Some airports which are of an importance to make instrument landing equipment desirable do not yet possess such features, the CAA points out.

Selection of sites, as the airports meet the requirements, will be made from a priority list of 25 submitted to

Leads NAA



Gill Robb Wilson

State director of aviation for New Jersey, who was elected president of the National Aeronautic Association.

Wilson Elected Head;
Aspires to Lead New
Unified Front Toward
Important Objectives

By W. W. P.

WHEN New Orleans newspapers of Jan. 12, 1940, reported that the National Aeronautic Association in the closing session of its 18th annual convention elected a slate of officers without opposition, they were reporting accurately the surface news.

Tight-lipped association members and delegates alone knew about the conflict and drama behind that news. They had seen a house-cleaning job well done, industrious, fearless leadership established; vital objectives for aviation progress on the agenda, and better days ahead for a much-battered and much-abused organization.

The officers elected were: president, Gill Robb Wilson, state director of aviation for New Jersey, war-time flyer, "poet laureate of aviation"; vice-president, Brig. Gen. Walter G. "Mike" Kilner, Washington, recently retired as assistant chief of the Army Air Corps, an outstanding executive officer whom many hope to see later established as NAA's managing director; treasurer, William P. Redding of Denver, a westerner widely known as the man responsible for the growing prominence of Denver as an aviation city; secretary, re-elected, William R. Enyart, long active in the flight record equipment and youth educational activities.

The three new members added to the nine-man, overlapping, executive committee were Maj. Al H. Near of Louisville, Ky., crusader for airline service to moderate-sized airports, who was re-elected; C. S. "Casey" Jones, Newark, N. J., aviation school operator; Col. John H. Jouett, Washington, formerly NAA treasurer and currently head of the Aeronautical Chamber of Commerce, the trade association of airplane manufacturers.

Franklin K. Lane, Jr., Washington, was named NAA general counsel.

U. S. Senator Pat McCarran of Nevada, honored guest of the convention, was elected an NAA governor-at-large, where he will be associated with Orville Wright, Godfrey Cabot

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2 Air Corps Ships Set Unofficial Speed Marks

A Bell P-39 and a Curtiss P-40, Army Air Corps pursuit ships, on Jan. 16 were flown from Buffalo, N. Y., to Bolling Field, D. C., at speeds in excess of 300 mph., establishing new unofficial speed records. The planes were being delivered to the capital for display during an exhibit of Air Corps equipment at Bolling Field, Jan. 19-24.

Capt. George E. Price piloted the P-39, known as the Bell Airacobra, a single-seat interceptor, covering the 340 air miles in 63 min. He was quoted as telling mechanics he was "just cruising along and not trying for speed."

Flying a more direct route, Capt. Benjamin Kelsey, Army test pilot attached to Wright Field, flew the P-40 over approximately 300 air miles in 57 min. He was quoted by the *Buffalo Evening News* as saying "the P-40 is capable of 100 mph. more than I flew it."

Bell Aircraft Corp. and Curtiss Aeroplane Div. of Curtiss-Wright Corp., both in Buffalo, are working on quantity orders of the pursuits for the Army. Both planes, single-engined, are powered by Allison liquid-cooled powerplants.

Correction

AMERICAN AVIATION regrets exceedingly the error in the Jan. 1 issue by which Edmund T. Price, president of Solar Aircraft Co., San Diego, Cal., was referred to in a caption under a photograph as "Edmund T. Wilson." Apologies to Mr. Price and Solar Aircraft.

Doolittle

(Continued from page 1)

holds both Doctor of Science and Master of Science degrees from Massachusetts Institute of Technology. In 1931 he established a new record for the transcontinental flight and won the Bendix Trophy and cash prize of \$10,000. He won the Schneider Cup Race in 1925 and was awarded the Mackay Trophy with Lt. Bettis.

In 1929 he received the Harmon Trophy in recognition of the first blind flight. Maj. Doolittle was the first pilot to take off, fly and land a plane without vision in a covered cockpit. He also was the first pilot to make an outside loop with a plane.

He joined the Caterpillar Club in 1929 when the wings of his racing plane collapsed. In 1928 Maj. Doolittle received the Distinguished Flying Cross with oak leaf cluster, and in 1938 received the Spirit of St. Louis Medal for his contributions to aviation.

Dolan Chairs ASME Group

Charles H. Dolan, member of the Lafayette Escadrille and American manager of the Intercontinent Corp., has been made chairman of the aeronautic division of the American Society of Mechanical Engineers for 1940. Dolan was vice president and operations manager for Eastern Air Lines in the early part of the decade and has over 25 years' experience in the aeronautical field. He succeeds Prof. Alexander Klemin, head of Guggenheim School of Aeronautics, New York University, as chairman of the ASME division.

99's President



Mrs. Betty H. Gillies

Syosett, N. Y., recently was elected national president of the Ninety-Nines, international organization of women pilots. She holds commercial pilot certificate No. 6525.

New DAILY Rates

New low long-term rates for *American Aviation Daily* have gone into effect. For six months the price is \$85 and for a year the rate is now \$170. Former monthly rate of \$15, postage included, is retained.

Airline Safety Mark Has Narrow Squeak

The excellent safety record established by U. S. airlines experienced a narrow squeak on Jan. 12 when a United Air Lines Mainliner, enroute from New York to San Francisco, developed engine trouble over Iowa City, Ia., and returned to Moline, Ill., 60 miles away, making an unscheduled landing on a narrow stretch of the frozen Rock River near Moline.

Four of the five passengers, the first officer and captain were shaken up, but passengers continued their journey west a short time later in another Mainliner. The right wing, one engine and propellers of the disabled transport were smashed.

First Officer Charles E. Wheeler was unwilling to risk a landing on the small Iowa City airport when engine trouble developed in the Douglas sleeper and turned back to Moline. The plane overshot the Moline airport but the lone functioning engine pulled it over trees on the river bank and the ship settled to the ice with less than 300 yards of run available.

United officials described Wheeler's handling of the ship as "extremely skillful."

Following the accident, the Air Safety Board dispatched Paul Gillespie, investigator, from its Chicago office to investigate the damaged liner.

Yuravich Transferred

Edward Yuravich, chief of the CAA's air carrier inspection section, has been permanently transferred from Washington to Santa Monica, Cal., with no change in status.

* VEGA ANNOUNCES EXPANSION *

* Acquisition of 150,000 sq. ft. of new factory floor space at 923 E. San Fernando Rd., Burbank, Calif., triples present facilities for the manufacture of Vega Airplanes. In addition to the production of the

revolutionary new Vega "Starliner" with UNITWIN power, the 23½ acres of land and factory buildings will also be used by the newly inaugurated Contract Parts Division for the manufacture of aircraft parts.

VEGA
Airplane Company

BURBANK, CALIFORNIA

* (Subsidiary of Lockheed Aircraft Corporation)

Congressional Group**Forms Flying Club**

Composed of the Congressional group which recently completed a flying tour of inspection of Army military posts, the "Congressional Flying Club" was formed in mid-January in the office of Sen. Harry S. Truman of Missouri. The delegation flew in a plane marked "MAD"—Middletown Air Depot—and nicknamed the plane "Madhouse."

The group which received silver wings as a mark of 20,000 miles of flight on official duty included Sen. Truman; Sen. Sherman Minton of Indiana; Sen. Chan Gurney of South Dakota; Sen. Dennis Chavez of New Mexico; Sen. H. H. Schwartz of Wyoming; Sen. Lewis B. Schwellenbach of Washington, and Rep. Paul Shafer of Michigan.

Club is sponsored by Al Holland, Washington flyer.

Army Air Corps Exhibit Exceeds Expectations; Extended 3 More Days

Far exceeding the expectations of industry people and proving itself more popular than its sponsors had predicted, the Army Air Corps' equipment exhibit scheduled for the dates Jan. 19-20 at Bolling Field, D. C., was extended to Jan. 24 at the request of President Roosevelt.

The exhibit, prepared by the Air Corps and manufacturers of military equipment, was prepared to show late developments of Army planes, equipment and accessories and was divided into three parts: an airplane exhibit, a laboratory exhibit and an ordnance and armament exhibit.

In hangar 2, cross sections of all important Air Corps laboratories were assembled with examples of their work and the productions of the aviation and instrument industry dealing with national defense. All the parts that make up an airplane, from engines to the simplest accessories, were on view.

In hangar 1, the latest Air Corps Ordnance was shown with various special combat planes and their installations. Among planes shown were the Bell P-39, Curtiss P-40 and Bell Airacuda.

Facing the hangars was a line of the late models of training, observation, photographic and combat planes with armament and equipment in place and with typical bomb loads. Starting at one end of the line with the smallest primary training plane, the craft ranged to the four-engined XB-15 bomber weighing 30 tons at the other end of the line.

Consensus of opinion in Washington was that it was the greatest aviation ground show ever held.

United's Politico

An airline sales representative, Eastman Iremonger, who covers the insurance, legal and banking fields for United Air Lines in New York, has been elected president of the Plainfield, N. J., Common Council for 1940, a post second only to that of mayor. Known as "East" by his friends, Iremonger is serving the final year of his second term as councilman and is a former commissioner and secretary of the Plainfield Police Board. Now 35 and a native of Plainfield, he was unanimously elected to his new post on a single ballot.

Calendar

Feb. 5-7—Air Transport Association's Engineering and Maintenance Conference, Muehlebach Hotel, Kansas City.

Feb. 8—Air Transport Association's Purchasing Committee Meeting, Muehlebach Hotel, Kansas City.

Feb. 10-11—Venice, Fla., Aviation Club's Annual Air Meet, Fred Albee Airport.

Feb. 17-25—Sportsman Pilots' Air Show, International Amphitheater, Chicago.

Feb. 24-Mar. 9—Aviation Show Sponsored by May Co., Cleveland.

Mar. 3—Dedication of Norfolk (Va.) Municipal Airport and Inauguration of Douglas DC-3 Service by Pennsylvania-Central Airlines.

Mar. 16-21—Sportsman Pilots Association Cruise to New Orleans.

Apr. 25-27—Air Congress of America, Southwest Division, Tulsa.

May 1-3—American Society of Mechanical Engineers, Spring Meeting, Worcester, Mass.

June 1-2—Birmingham Air Carnival Birmingham, Ala.

June 17-21—American Society of Mechanical Engineers, Semi-Annual Meeting, Milwaukee.

Sept. 3-6—American Society of Mechanical Engineers, Fall Meeting, Spokane, Wash.

Oct. 7-11—National Safety Congress and Exposition, Stevens Hotel, Chicago.

NEW ALTITUDE MARK SET

United Air Lines' Douglas Plane Reaches 29,300 Feet; Second Record in 3 Months

For the second time in three months Capt. W. E. Larned, assistant flight superintendent for United Air Lines' eastern division, set a new altitude record for Douglas DC-3 planes by climbing to 29,300 ft. recently while University of Chicago scientists snapped pictures of cosmic rays. Previous high of 28,900 ft. was reached last October during a similar flight. Dr. Gerhardt Hertzog and Winston Bostwick, associates of Dr. Arthur H. Compton who heads the cosmic ray studies, reported a temperature of 38° below with ideal weather conditions for the experiments. R. J. Nemmers co-piloted the transport plane which is equipped with twin-row, C-type Wasp engines.

ATA Aids in 'Travel America' Plan for '40

Fowler W. Barker, secretary of the Air Transportation Association, attended a meeting in Washington Jan. 18 of travel representatives pledged to support President Roosevelt's program to make 1940 a "Travel America" year. All representatives at the meeting promised to devote substantial portions of advertising budgets to stimulation of travel in North, Central and South America. W. Bruce McNamee, chief of the United States Travel Bureau, is directing the program.

Norfolk to Dedicate Port**Mar. 3; PCA Cooperating**

Norfolk (Va.) Municipal Airport will be dedicated on Mar. 3 coincident with the inauguration of Douglas DC-3 service by Pennsylvania-Central Airlines and the christening of one of the new transports the "Capital Ship Norfolk."

Extension of DC-3 Capital Fleet service to Norfolk by PCA follows inauguration on Jan. 2 of Douglas service on the line's Detroit-Cleveland-Akron-Pittsburgh-Washington division.

99's Secretary Named

Marjorie Ludwigsen of New York has been appointed by the executive committee of the Ninety-Nines to serve as national secretary, succeeding Elizabeth Phillips of Fredericksburg, Va., resigned.

I. Ae. S. President

Maj. James H. Doolittle
Aviation director of the Shell Oil companies of the U. S., succeeds Dr. George W. Lewis as president of the Institute of the Aeronautical Sciences.

Who's Older?**Capital and Pennsy Clubs Disagree**

Confusion has arisen in determining which aeronautical club in the U. S. is older—the Aero Club of Washington or the Aero Club of Pennsylvania. The former has laid claim to being the "oldest aeronautical club in the U. S.," and the Pennsylvania group recently designated itself as the "oldest active incorporated aero club in America."

The Washington group was organized on Jan. 23, 1909, and its charter of incorporation was filed on Jan. 25, 1909, two days later.

The Pennsylvania club was organized Dec. 17, 1909, and was incorporated in May 1910.

Adding to the confusion is the report of a brief lapse of activity on the part of the Washington club during the time of the World War when all aeronautical agencies were in charge of the government, but Washington members point out that the club at no time was officially inactive.

Following the recent annual meeting of the Washington club, it was announced that Capt. Corley P. McDermott had been re-elected president. Other officers are Mary E. Benson, 1st vice president; Capt. Brintnall H. Merchant, 2nd vice president; Lillian Prinz, 3rd vice president; Paul E. Garber, secretary, and Clarence S. Bruce, treasurer.

Pennsylvania's aero club not long ago observed its 30th anniversary at a dinner at the Warwick Hotel, Philadelphia, at which time Kern Dodge was re-elected president. Additional officers are Victor R. Fritz, 1st vice president; Fred Vilsmeier, 2nd vice president; Ralph H. McClaren, secretary, and William H. Sheahan, treasurer.

The following appeared on the program of the anniversary dinner: S. S. Jerwan, Brig. Gen. Barton K. Yount, Clarence P. Wynne, Capt. Walter E. Johnson, Frank Mills, Augustus Post, Capt. Horace B. Wilde, Mrs. Clara Adams, Capt. W. W. Webster, Phillip T. Sharples, Dr. Henry Butler Allen and Col. J. Victor Dallin.

The Pennsylvania club, with headquarters in Philadelphia, is a chapter of the NAA and is affiliated with the Federation Aeronautique Internationale. It has been active in working for the Philadelphia Airport; it sponsors the Philadelphia Model Aeroplane Association and the Pennsylvania State College extension courses in aeronautical engineering; it awards each year the Hollingshead N. Taylor Memorial Flight Scholarship, and holds meetings of general interest during winter months.

Soda Fountain?

One feature of Washington's new national airport now under construction will be facilities for heating and cooling all transport planes at each loading platform. Airline companies will not have to maintain their own mobile cooling and heating trucks, but simply will attach hoses to stationary ducts which will provide cold air in the summer and hot air in the winter. Refueling trucks will not be needed at the new airport as fuel will be supplied by a series of underground tanks.

NAA

(Continued from page 1)

and other esteemed sponsors of aviation progress.

The convention adopted a reorganization plan and a new set of by-laws that enable the National Aeronautic Association to affiliate for broad popular front action, any aviation organizations that care to cooperate with NAA in the drive for aviation objectives of public interest.

Local NAA chapters are to be known in the future as aero clubs and are expected to be an important leadership element among the affiliated organizations expected to cooperate and coordinate their efforts through the NAA popular-front set-up.

With so many nations of the world at war, the subject of national defense was prominent during the convention. During his address, Brig. Gen. Barton K. Yount stated that the Army was squarely behind the NAA resolution favoring a federal appropriation of \$125,000,000 for the year 1941, "to be used in the construction and maintenance of airports and landing fields, the improvement of present airports, landing fields and facilities, this money to be wisely distributed under a federal-aid program in accordance with the needs and recommendations of the several states . . . to be appropriated and expended by the Civil Aeronautics Authority."

Senator McCarran urged NAA to greater action in bringing to the American people a better understanding of the importance of aviation in our national life. He urged the appointment of aviation committees in both houses of Congress and stated emphatically that the CAA should remain independent of any other governmental agency.

As the program speaker for scheduled air transport, Cyril C. Thompson of United Air Lines urged NAA to organize and man itself to lead in getting for the public all of aviation that is in the public interest. He ridiculed an old NAA fear complex about "lobbying" activity and stated that "if NAA will not be a 'lobbying' organization in the broad, constructive, sentiment-crystallizing sense and will not go after and get, through legislation and otherwise, the things our public desires—then NAA, in my opinion, has no vital reason to exist."

Speaking at the annual dinner, Thomas A. Beck, editorial director of *Collier's* magazine, urged NAA to give attention to an action program rather than organization details. He said "let's quit telling ourselves how good we are and go to work and do something. Other than the accomplishments of the past four years, we (referring to aviation) haven't made much progress since 1912."

Richard C. du Pont, president of All American Aviation Inc., which operates an air mail pick-up system in four states, urged expansion of feeder lines affording air mail service to smaller towns not now on airlines. He envisioned a vast network of interconnected feeder routes by which towns and cities in the country would be within "overnight reach of each other."

Overnight first class mail everywhere in the United States is expected to be one of the items on Wilson's action program for NAA during 1940. Other items expected to appear near the top of the list are the \$125,000,000 airport



Kilner

Association Would Extend Air Mail, Feeders; Approves Civilian Training

The extension of air mail and feeder line service to more and more communities is urged in a resolution passed by the National Aeronautic Association at its Winter meeting held in New Orleans, Jan. 10-12. The resolution asks that the CAA grant applications for certificates to operate such lines "consistent with the air mail appropriations available therefore, and further urges that Congress make available ample funds for air mail service to be rendered by these extension and feeder lines."

Another of the 11 resolutions passed at the NAA meeting was one approving authorization by Congress of the civilian pilot training program being directed by the CAA. The body asks that the program be continued and extended under the Authority.

The association went on record as deplored the "lack of funds to provide weather reports from the north Pacific coast and from ships at sea in the Pacific" and urges that Congress in appropriating funds for the Weather Bureau, provide adequately for servicing this area, and that all stations be provided with sufficient communicating facilities.

"Recognizing the unfairness of requiring municipalities, or the operating aviation companies alone to provide these (airport) facilities at their own expense," the NAA urged the federal government to assist in building new airports and extending and improving airports now in existence. Congress is urged to adopt by appropriate legislation the recommendation of the CAA for the appropriation of \$125,000,000 for 1940 for these purposes.

Another resolution favors a "vigorous preparation by the national government for the national defense by air . . . urging upon Congress the necessity of providing this country with an even greater and stronger air force to the end that we may have an air power arm adequate to provide proper air defense."

The Aviation Writers Association, now with a membership of 67, was commended in an NAA resolution for "doing a splendid work in educating the public in matters pertaining to aviation . . . for its contribution to the promotion and development of aviation and airmindedness of this nation."

Efforts of Senators and Congressmen now endeavoring to create standing committees on aviation in the Senate and House were approved. In addition, it is urged that individual NAA members encourage Senators and Congressmen to create by appropriate legislation such standing committees.

The NAA favors "a broadened as well as a more intensified scientific research for the development of aviation both for commercial use and for the national defense" and urges upon Congress the necessity of continuous and increased appropriations for the National Advisory Committee for

program, expansion of service over existing airways through more local stops and daylight feeder line activity and support for the light airplane industry.

It is said to be Wilson's plan to have qualified committees examine all project proposals before NAA gets behind them, but after a project is approved, as in the public interest, NAA pressure will be felt in a new way, it is said.

Aeronautics to enable it to continue its present research, and particularly "to enable it as rapidly as possible to aid in the creation of a plane of low cost and maximum safety adapted to the use of the general public for private civilian flying."

Action of the War Dept. in using civilian institutions for military training of pilots was approved. The association urges that this method of training Army pilots be continued and extended.

Approved and confirmed was the action of the NAA's executive committee in incorporating the Aerial Nurses Corps of America "into and as a division of the National Aeronautic Association."

Reviewing the purposes and work of two international air law groups—CINA (International Commission for Air Navigation) and CITEJA (International Technical Committee of Aerial Legal Experts)—the association resolved itself in favor of the naming of a national commission for the U. S. and the establishment of a permanent American aeronautical commission "so that domestic air law may continue to grow in the American manner." This move was made in an effort to free international air law from European domination.

It was further suggested that the President and Secretary of State "seek the cooperation of the various aeronautical organizations of this country in the naming of the commission for the U. S. and that the Dept. of State create and maintain an advisory committee for the commission with representation from such groups."

FEEDER PASSENGERS

Dick du Pont Believes Mail Alone Is Not Enough

Adaptation of the pick-up system to include the transportation of passengers is a logical step in the development of feeder airline service, Richard C. du Pont, president of All American Aviation Inc., told the NAA at its annual meeting in New Orleans Jan. 10-12. "A feeder line that does not perform that function is not complete," he said. All American is currently operating an air mail pick-up service in Pennsylvania and West Virginia.

In the passenger service, he said, it has been proposed to operate small multi-engined planes, capable of carrying a crew of two and from three to five passengers. Use of the pick-up apparatus on these planes will eliminate unnecessary landings when passengers are not available, and this would overcome many of the delays which normally would prevent the maintenance of a high-speed schedule on short-haul routes.

"The likelihood of the future success of properly co-ordinated feeder services," du Pont said, "has opened a new door to the future of aviation. The development of such services on a national scale should take air transport out of its straightjacket, and enable it to make the most of the efficiencies it has developed, and at the same time, enable millions of our people who are now deprived of direct air service to have its advantages."

Halstead on School Staff

Paul C. Halstead, graduate of the aeronautical engineering course at New York University, has been added to the instructional staff of Roosevelt School of Aeronautics, Mineola, N. Y.

AIRPORT SYSTEM URGED IN NAA TALK

Major Burnett Asks Support of McCarran-Vinson Bill, Sees Federal Aid for National Network

Support of the McCarran-Vinson bill providing for an \$125,000,000 appropriation to be spent by the CAA as a start on a national airport system was urged by Maj. C. V. Burnett, manager of Detroit Municipal Airport and president of the American Association of Airport Executives, speaking Jan. 11 at the NAA's Winter meeting in New Orleans.

Declaring that "it is definitely against the precepts of democracy that local communities should bear the entire support of any vehicle of interstate commerce," Maj. Burnett pointed toward federal expenditures on rivers and harbors and federal participation in highway systems as examples of governmental aid for the development of transportation networks. The country-wide survey of the airport problem which was made by the CAA at the request of Congress indicates, he said, recognition of the principle of federal responsibility for airport improvement and construction.

In addition to the importance of a well-developed system of civil airports for national defense, Maj. Burnett emphasized the commercial benefits to the nation when air passenger, air mail and express services are brought to an increasing number of communities. "Every citizen of every village, city and hamlet," he insisted, "is entitled to the fast service of air mail, air express and passenger service that is possible with the eventual working out of a national airport system. There probably is not a person living within the confines of the U. S. who would not benefit personally from such a program."

Division of responsibility between the federal and local governments was offered as follows:

Federal government should assume responsibility for (1) all communications and required radio devices; (2) weather control facilities; (3) landing area proper, including costs involved in providing and maintaining a safe landing field; (4) all costs of lights and other facilities necessary for safety.

Municipal responsibility would then include provision for (1) the land; (2) all buildings needed; (3) management of the airport.

Referring to the request of the CAA in its first annual report to Congress that \$125,000,000 to be earmarked for construction, maintenance and improvement of airports, Maj. Burnett explained that \$100,000,000 of the amount was asked included in WPA funds. Since the "pick and shovel work" in airport improvement is in large degree completed, he suggested, "it would seem a much wiser course for us to get behind the McCarran and Vinson bills which ask for a straight appropriation of \$125,000,000 but which allow any portion of this money, which can be wisely spent for WPA type of labor, to be turned over to WPA for such labor, the net result being that relief labor would be utilized wherever possible, regular WPA appropriations would not be disturbed, and yet this important airport program would not be interlaced with a relief program which might cramp it severely." The bills, one introduced last year in the Senate by Sen. McCarran and the other in the House by Rep. Vinson, are expected to come up for consideration during the current session.

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A TOUGH AIRPLANE FOR A TOUGH JOB

FAIRCHILD M-62 TRAINER

THE first thing the critical observer will note in the Fairchild M-62 Trainer is its modern military design—full cantilever, low-wing monoplane. But solidly built-in behind that design is a bull-dog ruggedness of structure sufficient to meet all the various forms of violent abuse that fledglings seem so ingeniously able to invent. The M-62 is built to the rigid standards of the U.S. Army Air Corps, which specify a strength factor of 10 rather than the 7 or less usually offered by commercial aircraft!

Furthermore, the size, weight, and flight characteristics of the M-62 provide a remarkably easy transition to combat-type aircraft. Its gross weight of 2,450 pounds

enables the student pilot to acquire the big ship "feel" from the very start of his training. Large, roomy, Army-size cockpits of standard arrangement afford ideal training conditions for even the biggest pilots. The 115½ inch landing gear tread and steerable tail wheel give the M-62 exceptional ground handling characteristics. And dependable power is supplied by Ranger engines from 175 to 200 hp., specifically designed for operation in trainer-type aircraft.

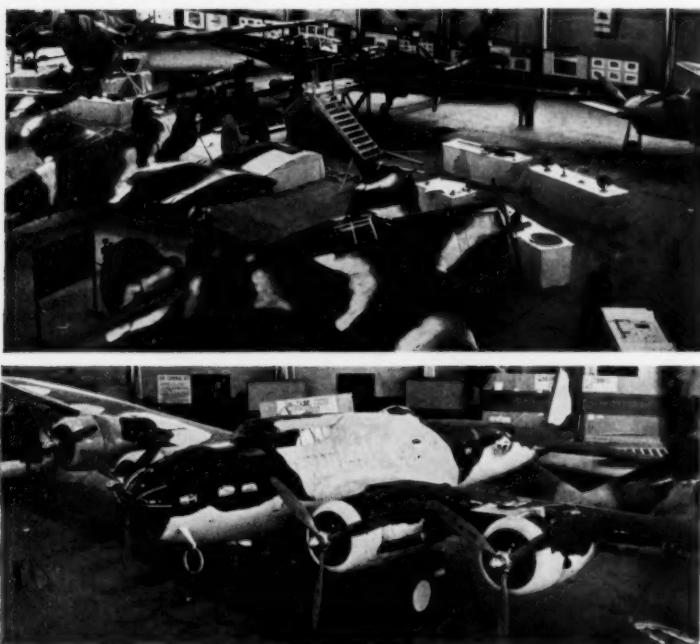
Now in quantity production for the U.S. Army Air Corps, the M-62 is certainly the right choice for the toughest jobs in all types of service training!

FAIRCHILD AIRCRAFT



Division of Fairchild Engine & Airplane Corporation
Hagerstown, Maryland . . . Cable Address "Faircraft"

Air Corps Equipment on Display



A portion of the Army Air Corps' aeronautical exhibit at Bolling Field, D. C., is shown in the above photos. Top picture shows some of the camouflaged combat planes in the foreground and pursuit planes in the background.

Bottom is a photo of a Boeing B-17 Flying Fortress in war paint. The exhibit was held from Jan. 19 to 24. (Official photos, U. S. Army Air Corps).

Pilots Increase 37%, Planes 24% in 1939

As of Jan. 1, 1940, there were 31,264 civilian pilots certificated, an increase of 37% over the 22,983 certificated on Jan. 1, 1939, the CAA announced recently.

Of the total civil pilots at the first of this year, 1,197 had airline rating, 7,292 were commercial, 988 limited commercial, 13,452 private and 8,335 solo. California led all states in number of pilots, with 5,193, and New York was second with 2,636.

Of the 31,264 pilots, 902 were women, the CAA stated, of whom 86 held commercial rating, 30 limited commercial, 476 private and 311 solo.

An increase of 24% was also noted in the number of civil airplanes in the U. S. from 11,159 a year ago to 13,772 on Jan. 1, last. There was a "satisfactory" decrease in the number of uncertified planes from 1,159 to 943, the CAA said. California led in certificated and uncertified planes, with 1,344, and New York was second with 1,018.

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House Passes '41 Air Mail Funds

Passed by the House shortly before this issue went to press was the 1941 fiscal year air mail appropriation bill, carrying the House Appropriations Committee's recommendation of \$19,330,000 for domestic air mail and \$15,674,149 for foreign.

The domestic appropriation represents a cut of \$50,350 from budget estimates, the Appropriations Committee disallowing that amount for a campaign of advertising the air mail service to be conducted by the Post Office Dept. The foreign appropriation is the same as the budget estimate.

Concerning the \$50,350 advertising, the Committee stated: "The Committee has gone into the matter very thoroughly and is in sympathy with increasing the use of air mail and the revenues from that service and broadening its scope of patronage, but it does not share the department's views that the proposed type of advertising would have very much effect. The American public generally is pretty well informed as to the existence and advantages of air mail."

The \$19,300,000 for domestic service represents an increase of \$686,800 over last year, of which \$578,125 covers increased rates allowed on several lines by the CAA and the ICC; \$108,675 for increased frequency on existing routes and a small increase for personal service and travel of personnel in the PO air mail division.

The foreign appropriation is \$3,154,629 over 1940, due to increases in rates allowed by the CAA for trans-Pacific service, to the inclusion of the New Zealand route on a full-year basis, and to increased South American frequency. The trans-Pacific increase amounts to \$1,228,000, and South America \$1,962,462, "which contemplates an increase of from two to three round trips per week on both the east and west coasts on six routes, and from one to two round trips per week on two other routes."

Navy Hopes to Gain 437 Planes From National Defense Deficiency Bill

House appropriation committee hearings made available Jan. 11 revealed that funds for 518 planes for the Navy's Bureau of Aeronautics were included in the National Defense Deficiency Bill, although Senate action prior to press time had eliminated \$6,075,000 from the total which was to have gone for 81 scout bombers.

The deficiency bill on national defense is separate and distinct from the regular Navy appropriation for the fiscal year 1941, details of which had not yet been made public.

Included in the \$34,736,000 requested supplemental deficiency bill were funds for the following types of planes: 100 observation-scouting planes at a unit cost of \$50,000, and total of \$5,000,000; 37 patrol-bombing planes at a unit cost of \$150,000, for a total of \$5,550,000; 81 scout bombers costing \$75,000 each or a total of \$6,075,000; 150 primary training planes costing \$16,100 each or \$2,415,000 total; 50 fighting trainers at \$75,000 each or \$3,750,000 total; 50 observation-scout trainers at \$50,000 each or \$2,500,000 total; and 50 scouting-bombing trainers at \$66,120 each or \$3,306,000 total. The 518 planes were to cost \$28,596,000, all exclusive of regular 1941 procurement.

The economy wave in Congress, however, cut the 81 scout bombers from the program. Although Senator Adams told newspapers that this cut was made because delivery of these planes could not be obtained at this time, Admiral John Towers, Chief of the Naval Bureau of Aeronautics, told a different story to the House Naval Affairs committee Jan. 24. He said that delivery delay was definitely not the reason for the cut.

"I am informed," he said, "that the chief of operations was told the total amount had to be reduced and that he was asked as to what items could come

Plane Totals

Testimony before the House appropriations committee by Dr. Vannevar Bush, chairman of the National Advisory Committee for Aeronautics, indicated that the Army now has 2,400 planes, the Navy 1,500 and the Marine and Coast Guard about 400 to 500. Dr. Bush estimated that between 4,000 and 5,000 new airplanes will come into the services during the next two or three years.

out with the least damage to the program as a whole. This was one item selected because the loss of the 81 planes would not wipe out a project. There are still 100 planes provided for this particular project. Delivery would probably be later than any other planes included except some of the big patrol planes actually on order. No financial obligations would have to be revoked by this cut, as orders have not been placed. It is an incorrect statement that the planes could not have been delivered. They could have been delivered if we had the money."

With a net total of 437 planes remaining in the deficiency bill, Admiral Towers revealed that the Navy is asking approximately \$71,000,000 in cash plus contractual obligations for 576 additional aircraft in the regular appropriations. Both large patrol boats and smaller planes will be purchased.

Admiral Towers testified at a hearing on the Vinson bill (HR 8026) authorizing an increase in Naval aircraft to not more than 6,000 planes and 36 lighter-than-air craft. He said that while 6,000 planes are desirable, only about 4,000 are required to complement the total ship tonnage authorized. Under present law the Navy air strength is authorized at not less than 3,200 planes.

CAA to Buy 27 Planes in Fiscal 1941; Pilot Training Cut \$1,000,000 in House

As a \$27,900,693 appropriation for the CAA in fiscal year 1941 passed the House, hearings before the House Appropriations Committee showed that the CAA contemplates purchasing 27 new airplanes during that year at a net cost of \$240,000.

Because of the fact that two planes will be traded in, the purchases will constitute an increase of 25 over the 1940 total. Purchases will be as follows: two twin-engined transports at \$35,000 each; one four-passenger cabin plane, \$15,000; 14 two-passenger cabin planes at \$7,500 each (one traded in for \$2,500 in this class); one two-passenger cabin plane, \$8,700, with \$1,200 trade-in; three light planes at \$2,500 each, and six two-passenger cabin planes at \$6,250 each.

Including the 1941 purchases, the CAA will have five twin-engined transports, 48 four-passenger cabin planes, 61 two-passenger cabin planes, and 24 light planes.

The bill as passed by the House was \$1,020,930 under the budget estimate of \$28,921,623, main cut being \$1,000,000 from the pilot training program. Remaining \$20,930 was taken from the general administration fund.

In explaining the cutting of pilot training funds from \$6,000,000 in the budget estimate to \$5,000,000, Rep. C. A. Woodrum (D., Va.) of the House Appropriations Committee stated: "The CAA is doing a very splendid job.

The committee has given them the budget estimate with the exception that it reduced the amount for civilian pilot training from \$6,000,000 to \$5,000,000 . . . that perhaps the program would not move as fast as the CAA had counted on and that \$5,000,000 would, perhaps, be ample to carry it on through the next fiscal year." The CAA received \$4,000,000 for pilot training in the present fiscal year.

House Passes NACA Bill

The House on Jan. 18 passed the Independent Offices Bill providing \$8,000,000 for the National Advisory Committee for Aeronautics, double any previous amount appropriated to this agency. Of this amount, \$4,200,000 is for construction of laboratories at Moffett Field, Sunnyvale, Calif., the new research facilities authorized by Congress last year.

Govt. Takes 4 TCA Ships

The government of Canada has taken over four Lockheed Electra 10A transports from Trans-Canada Air Lines at a price of \$181,000, it was revealed in mid-January. At the same time, Canada's War Supply Board announced an order amounting to \$399,000 granted by Canadian Pratt & Whitney Aircraft Co. Ltd. Another order, totaling \$138,000, went to Noorduyn Aviation Ltd.



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37 Cities Served on PIA's Charter Routes

After a welcome by civic bodies, city and county officials, the Aero Club and city newspapers, Pittsburgh's newest air service recently got under way with a four-way system of air routes following the waterways. Operated by Pittsburgh Institute of Aeronautics and promoted by R. V. Trader of PIA, the amphibian service reaches into 37 towns on waterways in the Pittsburgh area.

PIA's amphibian, "The Golden Triangle," inaugurated the service, and additional ships will be added when needed, it was said. Base of operations is Pittsburgh-Bettis Airport at Homestead, Pa.

Cities served on the four routes are Monongahela, Donora, Monesson, Charleroi, Belle Vernon, Fayette City, Rosco, California, Brownsville, Fredericktown, Nemacolin, Pt. Marion, Morgantown, Uniontown, Connellsville, Dawson, Perryopolis, West Newton, McKeesport, Sewickly, Ambridge, Aliquippa, Monaca, Beaver Falls, Ellwood City, New Castle, Youngstown, Midland, East Liverpool, Wheeling, Oakmont, New Kensington, Tarentum, Freeport, Ford City and Kittanning.

PIA also demonstrated shuttle service from Duquesne Wharf in downtown Pittsburgh to Allegheny County Municipal Airport, shortening automobile time for the route from 35 min. to 5 min.

Keyser, Kelly Shift

George D. Keyser, Jr., district traffic manager for Western Air Express, recently left his Salt Lake City post to take up duties in his line's other main terminus, Los Angeles. He was succeeded by Arthur Kelly, WAE d.t.m. at Butte, Mont., who formerly was located in Salt Lake.

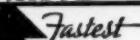


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Hearing Ends on UAL Application For Approval of WAE Acquisition

TWA Claims Serious Financial Damages Will Result from Merger; Examiner Pound Completes Proceeding in Record Time

The important hearing on the application of United Air Lines for approval of acquisition of Western Air Express concluded in Washington Jan. 17 before Special Examiner Roscoe Pound.

Because of the effect it may have upon similar deals in the future, the case is being watched with great interest by the industry. TWA and the minority stockholders of Western Air were present at the hearing as intervenors in opposition, while Western Air Corp. also intervened but was neutral. Briefs in the case are due Feb. 8.

Cost to the government of transporting air mail between Los Angeles and Salt Lake City probably will be less than at present if the UAL application is approved, according to testimony given by W. A. Patterson, president of United. Patterson pointed out that the rate would be less because continuous operation of a route into Los Angeles by one company would make possible certain economies and would increase passenger revenues. On cross-examination, he stated that his company has informed WAE that it will oppose any application by the latter for a direct Los Angeles-Denver route. Such a route would be "unsound and destructive to the whole air mail map," in that it would lead to the cutting of corners elsewhere, he said. United has no plans for such an operation, even with DC-4 equipment, he added.

Last witness presented by UAL were Paul Coffman, vice-president of Standard Statistics Co.; Thomas Crowell and Carl Anderson, of Ford, Bacon & Davis, engineers, and Russ LeBrock, United director of mail and express (for testimony of other United witnesses, see AMERICAN AVIATION, Jan. 15). Crowell and Anderson called the proposed merger a "constructive undertaking," and the former stated that the present arrangement is "a deterrent to traffic through the Salt Lake gateway." Coffman testified concerning a study made by him in which he concluded that the basis of exchange (one UAL share for three WAE, or \$1.66 plus 1/6 share of UAL for each WAE) was fair and reasonable.

Increased competition that would be offered through establishment of a single United-Western company might "be so great as to raise considerable doubt as to the economic justification of the continuance of TWA's route west of Kansas City," according to Vincent P. Conroy, TWA vice-president-sales and traffic.

Although he stated that it was impossible to estimate accurately the losses which TWA might incur as a result of the merger, Conroy presented methods by which some estimates have been computed. During the first 11 months of 1939, TWA carried 4,258 New York-Los Angeles passengers, compared with 1,516 UAL-WAE, he said. If schedules had been evenly divided and with through service over UAL-WAE, Conroy stated that it would be reasonable to assume that each company would have carried one-half the passengers, or 2,887.

This would have been 1,371 less than TWA actually transported, or a loss of 3,564,600 revenue passenger-miles, resulting in a cash loss of \$184,000. On the same basis, TWA would have lost \$98,000 on Chicago-Los Angeles business, making a total loss of \$232,000, he said. Another method of computing possible loss, Conroy pointed out, is to assume that TWA would have lost one passenger per day. This would have resulted in a yearly loss of \$412,000 on

More Mergers

If the Civil Aeronautics Authority approves the proposed merger of United Air Lines and Western Air Express, hearing on which has been completed, industry leaders expect a number of other merger proposals to follow. While no such plans have materialized into concrete proposals, consensus of opinion is that there will be a trend toward consolidation with more through services.

New York-Los Angeles and Chicago-Los Angeles business, he said.

E. Lee Talman, vice-president-treasurer of TWA, presented exhibits which showed that 92% of the population served by TWA is also served by United or American Airlines or both; 64% of American's by UAL or TWA or both, and 83% of UAL's by TWA or AA or both. The western portion of American's route has a business potentiality 2 1/2 times greater than TWA's, while UAL's is 10 times greater, he said.

T. B. Wilson, chairman of the TWA board of directors, told Examiner Pound that the western half of TWA's route is "almost totally devoid" of potential traffic, and added that his company must be able to compete on an even basis with United and American. Every city on the TWA system except Winslow is tapped by a feeder route to one of the company's trans-continental competitors, he said. Most feeders short-haul themselves by turning business over to TWA, he concluded.

Main witness presented by the WAE minority stockholders was Alvin P. Adams, WAE president. Emphasizing that he was appearing as a stockholder and not as an officer or director, Adams stated that "my conclusions are that there would be no material savings effected by this merger." He added that, in his opinion, interchange of equipment at Salt Lake would be as effective as a merger. Officers of WAE have been authorized by the board of directors to prepare data for an application on a route between Denver and Los Angeles, branching off the company's present line at St. George, Utah, Adams revealed. Discussing other routes which he believed WAE should operate as an independent carrier, he mentioned San Diego-Phoenix and San Francisco-Los Angeles, and added that the pending extension to Lethbridge is very important.

Also testifying for the minority was Robert A. Rowan, secretary-treasurer of R. A. Rowan & Co., and organizer of the minority committee. Rowan stated that his group felt "a western company should be managed by westerners." Dr. John Crane, assistant professor of economics at Northwestern University, testified that the proposed merger was not in the public interest because if one trunk line is allowed to increase in size too much, it obtains superior bargaining power. If the east-west carriers get control of the north-south lines, they may stress through service and neglect local business, he added.

Only witness presented by WAE Corp. was Leo Dwerikoff, first vice-president, secretary-treasurer and acting president of the company, who introduced financial and traffic exhibits. He

Pittsburgh-Boston

Line Asked by TWA

TWA on Jan. 16 filed application with the CAA for a mail-passenger-property route between Pittsburgh and Boston via Williamsport, Binghamton, N. Y., and Springfield, Mass., a distance of 505 miles.

The application marks the second attempt on the part of a major airline to gain entry into Boston, United Air Lines having previously requested a route from Boston to Cleveland via Hartford. Approval of TWA's application, together with the purchase of Marquette Airlines, would add 1,069 route miles to the company's system.

TWA plans to operate through the Tri-Cities Airport at Endicott, N. Y., about 11 miles from Binghamton. At least two schedules a day would be flown over the route.

Jack Frye, president of TWA, has stated that most feeder lines short-haul themselves by turning business over to TWA. "It is our intention to build up our eastern network until we are able to give the large population centers a more adequate through routing via TWA to and from the west," he said. "TWA has been at a competitive disadvantage through its lack of direct access to these important sources of passenger business," he added.

American-Marquette Investigation Ends

Hearing in connection with the CAA investigation of contracts between Marquette Air Lines and American Airlines concluded before CAA Examiner Frank Law in Washington on Jan. 23.

Last witness called was Sigmund Janas, president of Canadian Colonial Airways, who testified that there was no connection between American and Marquette, except that the former leased planes to the latter.

The hearings have been held intermittently for the last few months, with meetings in St. Louis, Pittsburgh, New York and Washington. Examiner Law has not called for briefs, but indicated that he may do so after reading the record.

also stated that WAE has no present intention of filing application for Denver-Los Angeles.

On Jan. 17, oral argument was held before Examiner Pound for the purpose of defining the issues in the case. Paul Godehn, United attorney, argued that approval of the acquisition would not result in creation of a monopoly, and added that even if it did, the CAA could approve if the deal did not restrain competition or jeopardize another carrier. Gerald Brophy, TWA counsel, stated that the main thing United and WAE would get out of a merger would be "talking points." He said, "It's not the physical result, it's the psychological result that will take business away from TWA."

Oscar Trippet and Leslie Craven, representing the WAE minority, said acquisition would result in monopoly, and that there would be no savings. They urged Examiner Pound not to consider the sections of the United application asking approval of a merger or purchase of assets. Inasmuch as United has not decided which course it will follow, the propositions are too indefinite to be ruled on, it was claimed.

The entire hearing took only seven and one-half days, which is considered a record for such an important case. Dean Pound indicated he would render an early decision.



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Mid-Continent Asks Bismarck to Minot Extension of AM26

Hearing was held Jan. 19 before CAA Examiner Thomas Wrenn on the application of Mid-Continent Airlines for extension of its AM26, Minneapolis-Omaha-Tulsa-Bismarck-Huron, from Bismarck to Minot, N. D. The route in question is provided for in section 401(e)(2)(B) of the Civil Aeronautics Act.

Vernon A. Dorrell, MCA vice-president-operations, testified that the Minot airport does not now meet the requirements of the CAA, but that the city has promised to make all necessary arrangements. At least two runways will have to be paved, adequate housing facilities for planes provided, and arrangements made for handling passengers, he said. This can be done in 60 days, he added.

Dorrell stated that he has made four one-way survey flights over the route, the latest on Jan. 16. As far as the operations department is concerned, no new problems will be encountered in operation of the route by MCA, he indicated.

John Collins, MCA secretary-treasurer, told Examiner Wrenn that the company will expect 38¢ per mile mail pay on the line, the same as is now being paid on AM26. He introduced an exhibit showing that approximately \$3,316.21 in capital expenditures will be necessary for such items as airway communication equipment, altimeter, baggage scale, furniture, etc.

The exhibit also showed that for one month, MCA expects revenues of \$3,221.96 against expenses of \$3,115.40, or profit of \$66.56 on the extension (based on 93% performance, 38¢ mail pay, and 35% passenger load factor). During the period from July 1, 1939 to Nov. 30, 1939, MCA showed a profit of \$39,135.85.

Terrell C. Drinkwater appeared as counsel for Mid-Continent and George Keyser represented the CAA.

NASSAU CRUISE

Bahamas Offer Bounteous Hospitality To First Aircade Members

Seven planes participated in the first air cruise to Nassau, Bahamas, on Jan. 7 following the Miami air maneuvers. Since many pilots had already planned to fly to Havana, the efforts of the Bahamas to organize a large cruise to land at Nassau's first landplane airport, were not over successful, although Nassau established new records in hospitality to visiting pilots. One plane made a forced landing on a small island en route and the three occupants were rescued.

Nassau opened its new landing field only a few weeks prior to the Miami maneuvers, through the efforts of Harold Christie, prominent leader of the British islands. The field is about 185 miles from Miami, mostly over water. Christie announced that efforts will be made to attract planes of all descriptions to Nassau. A radio station is to be erected.

Cruise Plans Announced

The western wing of the Winter cruise of the Sportsman Pilots Association will rendezvous at Stinson Field, San Antonio, Tex., on Mar. 15, and cruise headquarters in that city will be at the Gunter Hotel, it was announced in mid-January. A pre-cruise party will be held on the evening of the 15th. The western wing and the eastern wing, which will rendezvous at Birmingham, Ala., on Mar. 16, will converge on New Orleans on that day.

Non-Stops Start, Stop

Controversy and competition on the non-stop New York-Chicago routes of three airlines became intensified recently with the addition of another flight by United Air Lines and the dropping of one by TWA. Eight non-stop flights each way are now performed by American Airlines, TWA and United.

United's new flight departs at 9 am. from both NY and Chicago. Other United non-stops leave in each direction at 12 noon, 3 and 5 pm., in direct competition with American's three flights at 12, 3 and 5.

TWA on Dec. 1 dropped one of two non-stops. The remaining flight leaves NY at 5:10 pm., Chicago at 4 pm.

CCA APPOINTS TWO Odenwalder Named Comptroller; Winchester in Publicity Director; Boothe Resigns

Canadian Colonial Airways on Jan. 22 announced appointment of Edgar P. Odenwalder, former secretary-treasurer of Marquette Airlines in St. Louis, as comptroller, and of James Winchester, formerly of American Airlines, as publicity director.

Resignation of David F. Boothe as assistant to Sigmund Janas, CCA president, also was announced. Boothe has been on an indefinite leave of absence since Dec. 1, 1939.

36 ON HAVANA CRUISE Prominent Air Race Stars Take Part in Cuban Show

Thirty-six airplanes made up the air cruise to Havana, Cuba, following the Miami air maneuvers, on Jan. 9. Aided by excellent weather, the flight was made without mishap except for a Curtiss Hawk piloted by Jesse Bristow, 38, of Leland, Miss., which fell into the sea. Bristow was quickly rescued. All but three of the ships stopped at Key West to refuel.

Many of the American planes participated in a three-day air show in Havana Jan. 12-14 sponsored by the National Sports Commission. On the opening day one minute's silence was observed by public and pilots in homage to Capt. Manuel Orta, Cuban army ace, who was killed in last year's air show at Rancho Boyeros.

Flight events were opened with a formation of three planes piloted by Mario Palacio, Cuban civil aviation commissioner; John Morris, co-organizer of the Miami-Havana aircade, and Capt. E. R. Prince, chief of the Florida CAA office. A 30-mile race was captured by Shelley Edmonton, of Troy, N. Y., flying a Fairchild, with George Brinckerhoff of College Park, Md., in a Stinson, coming in second and William Coddington of Charlotte, N. C., third, in a Waco.

Winner of the first day's events was Beverly Howard, of Charleston, S. C., flying a Piper Cub. Second was Vincent Burnett, of College Park, Md., in a Travelair and third was Capt. Alex Papana, of Rumania, flying a Bucher Jungmeister.

Among others in the aircade were Robert Loutt, Texaco representative; Walter Beech and Pilot Homer Rankin, in the twin-motored Beech which won the Macfadden trophy race to Miami; Buddy Batzel, air meet performer, and Jimmie Goodwin.

Omaha Port Figures Reported

Omaha, Neb.—The federal census bureau reported recently that Municipal Airport expenses here in 1937 were listed at \$62,693, as compared with earnings of \$6,697 that year. Airport debt was \$414,600.

Pittsburgh-Buffalo Mail on PCA Not Required, CAA Examiners State

Proposed Report Recommends Non-Mail Stops at Erie, Youngstown; Certification of Post Office Held Not Sufficient for Establishment of New Service

Air mail service on Pennsylvania-Central Airlines' route between Pittsburgh and Buffalo is not required by the public convenience and necessity, but the company should be allowed to make non-mail stops at Youngstown, O., and Erie, Pa., on the line, according to a proposed report issued Jan. 18 by CAA Examiners Francis W. Brown and Thomas Wrenn.

In recommending that the Authority so rule, the examiners did so in spite of the fact that the Post Office Dept. had certified the route for mail. As had been expected, the report pointed out that the CAA, in setting PCA's mail rates on Oct. 18, last, refused to consider the operating losses on the Pittsburgh-Buffalo route on the grounds that the operation is not justified by the requirements of commerce for air transportation.

CCA had requested (1) designation of its present non-mail Pittsburgh-Buffalo line as a mail route, and (2) designation of Youngstown and Erie as stops.

"The Act places upon the Authority the duty of making an affirmative finding that the amendment of the applicant's certificate to authorize the transportation of mail is required by the public convenience and necessity before such amendment may be made," the report stated. "The record before the Authority in this proceeding does not provide an adequate basis for such a finding. The applicant introduced no evidence in support of its request for an amendment to its certificate to authorize mail service other than the opinion of its president that a satisfactory volume of mail would be developed on the line and that the service would meet a public demand. It relied primarily upon the certification of the Postmaster General and the evidence introduced in support thereof.

"Clearly, mere certification of need

in and of itself would not be sufficient in view of the statutory requirement of public hearing and a finding by the Authority of public convenience and necessity. The testimony in support of the Postmaster General's certification was limited to a general expression by a representative of the Post Office Dept. to the effect that the proposed mail service is necessary to enable the department to render the best type of service to the public."

The examiners pointed out that no evidence was submitted on the potential volume of air mail which might be expected between Buffalo and Pittsburgh, except that a PO witness testified that, in his opinion, mail loads would average 25 lbs. In connection with this latter statement, the examiners noted that during 1938, mail loads on AM34, PCA's Washington-Buffalo line, averaged only 19 lbs.

"The proposed mail service would also provide a direct north-south mail service between Buffalo, Erie, Youngstown and Pittsburgh," the report said. "However, the evidence shows that the only local mail moving between these points which would be expedited is a small amount of special delivery air mail.

Mail pay of approximately \$40,000 per year, or about 35¢ per mile, would be required to permit PCA to meet the expenses of the route, the report stated. "In the absence of a more convincing showing than is here provided and in view of the conclusion of the Authority in the mail rate case with respect to justification of the applicant's Pittsburgh-Buffalo route, it is concluded that the Federal expenditures which would be required by the inauguration of mail service are not justified," it said.

With regard to PCA's request to stop at Erie and Youngstown, the report stated: "The record is convincing that operation to Erie and Youngstown would develop sufficient traffic to at least meet the additional costs which would be incurred by such operation. Under the circumstances, it is quite clear that the proposed new service would not constitute an additional financial burden.

"On the contrary, it appears quite probable that operation to Erie and Youngstown would serve to improve the load factor on the Pittsburgh-Buffalo route and place that route in a better position in seeking economic self-sufficiency.

"Furthermore, the record indicates that much of the traffic which would be developed by the proposed stops would originate at or be destined for points beyond Pittsburgh on the applicant's system and thus provide additional revenue with a consequent improvement in the applicant's general financial position."

Concerning Erie, the examiners said that, according to witnesses, surface transportation facilities are unsatisfactory. An average of 10 charter trips a month leave the Erie airport bound mostly for Pittsburgh and other southern points, they stated. At Youngstown, despite the fact that passengers must go to Akron, Pittsburgh or Cleveland to reach an airline, during the period Sept. 1938 to Aug. 1939, airline sales of a traffic bureau in Youngstown averaged \$500 per month, of which \$100 was over PCA.

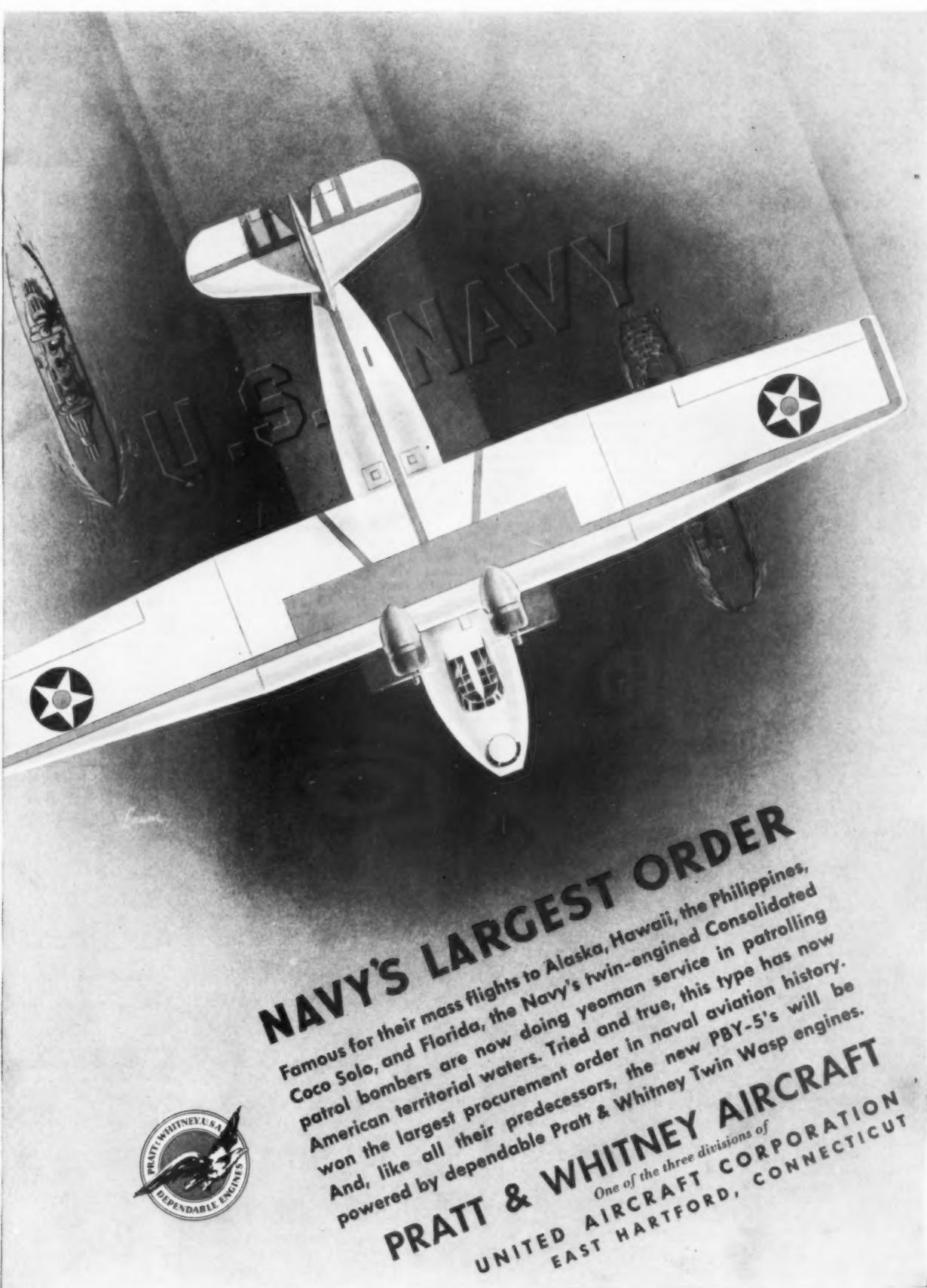
Testing Plastic Loop



Tests are being made of a new-type molded plastic shielded loop antenna by United Air Lines' communications laboratory through the use of an altitude chamber. George Levy, radio technician, is shown making tests to determine the effect of moisture and humidity on a standard shielded loop and the new type.

When pressure in the altitude chamber reaches an elevation of 65,000 ft. the two loops are plunged into the container of water by an electrically operated tripper. Then the altitude pressure in the chamber is reduced to sea level and the effect of moisture and humidity on the two loops compared.

United technicians say tests indicate the molded plastic loops may be superior.



NAVY'S LARGEST ORDER

Famous for their mass flights to Alaska, Hawaii, the Philippines, Coco Solo, and Florida, the Navy's twin-engined Consolidated Patrol bombers are now doing yeoman service in patrolling American territorial waters. Tried and true, this type has now won the largest procurement order in naval aviation history. And, like all their predecessors, the new PBY-5's will be powered by dependable Pratt & Whitney Twin Wasp engines.

PRATT & WHITNEY AIRCRAFT

One of the three divisions of
UNITED AIRCRAFT CORPORATION
EAST HARTFORD, CONNECTICUT

PRATT WHITNEY U.S.A.
DEPENDABLE ENGINES

COHU DIRECTORATE REPORT RELEASED

Approval of Positions with TWA, Northrop Recommended; TWA-Air Investors Relationship Disapproved

Recommendation that LaMotte T. Cohu be approved as a director of TWA and as chairman of the board and director of Northrop Aircraft Inc., but not as director of TWA and president and director of Air Investors Inc., was contained in a proposed report released Jan. 12 by CAA Examiner C. Edward Leasure.

Stating that there was "inherent danger" in approval of Cohu's offices with TWA and Air Investors, Leasure added that inasmuch as Northrop was not engaged in manufacturing commercial planes, relationship between that company and TWA would not be adverse to the public interest. Cohu had sought approval of all three positions.

"In denying approval of an application for an interlocking relationship between an air carrier and a manufacturer of aircraft used or useful in air transportation, the Authority pointed out that such a relationship necessarily involved a potential conflict of interest (Lawrence C. Ames, Continental Air Lines and Lockheed)," Leasure said.

"However, Northrop Aircraft Inc., the manufacturer involved in this proceeding, proposes to engage in the manufacture of military aircraft exclusively and consequently will have no business relations with TWA. Although this manufacturer could, under its charter, enter into the commercial aircraft field, the transition would undoubtedly be slow and would afford sufficient time for reconsideration of the relationship here involved. The Authority is in position to scrutinize relationships previously approved and may revoke any order or opinion if it believes the public interest will be adversely affected by the continuance of such relationship. Under the circumstances it appears that the service of applicant Cohu as chairman of the board and director of Northrop Aircraft Inc., while retaining his position as director of TWA will not be adverse to the public interest.

A potential conflict of interest would also be present in the case of an interlocking relationship between an air carrier and a company whose principal business is the holding of aviation stocks, including those of air carriers. A person common to the board of directors of both might find it difficult to act in the best interest of the individual companies in connection with such negotiations as those involving the sale of securities of the air carrier.

"Proof that Air Investors Inc. deals in the stocks of various aviation companies for investment purposes only and does not now hold a controlling interest in any one of those companies is not an affirmative showing sufficient to overcome the inherent danger involved in an interlocking relationship of this nature. Upon consideration of the record, it is concluded that the applicants herein have not met the burden of proof placed upon them to show that the public interest would not be adversely affected by applicant Cohu serving as president and director of Air Investors Inc. while retaining his position as director of TWA."

Cohu's principal business is his association with Northrop, the report said. He owns 4,999 shares, or 2.49% of the outstanding class A

Examiners Recommend Carlsbad, Hobbs, Roswell Stops on Continental

Recommendation that Continental Air Lines be permitted to stop at Carlsbad, Hobbs and Roswell, N. M., on AM29, Denver-El Paso, was contained in a proposed report issued Jan. 20 by CAA Examiners C. Edward Leasure and Robert J. Bartoo.

The examiners further stated that Continental is fit, willing and able to perform the service, and recommended that the company's AM29 certificate be amended to read as follows: Between the terminal point Denver, the intermediate points Colorado Springs, Pueblo, Trinidad, Las Vegas, Santa Fe, Albuquerque, Roswell, Hobbs and Carlsbad, and the terminal point El Paso.

Continental applied for permission to serve the cities on June 28, 1939, and on July 25, the Post Office certified to the CAA that the needs of the postal service require transportation of mail by aircraft over the above-mentioned route.

A PO inspector testified at the hearing that a 25% increase in volume of air mail at Carlsbad could be expected if that city were designated as an air mail stop, and that a 40% increase could be expected at Roswell.

He stated that air mail was not used in Hobbs to any appreciable degree because present air mail connections were not good, that investigation disclosed a probability that many oil companies, with main offices in distant cities, would use air mail extensively, and that an increase of as much as 400% might result if Hobbs were made an air mail stop.

"As hereinbefore shown, southeastern New Mexico has experienced a substantial increase in population since 1930," the examiners said. Irrigation projects and national parks have been developed by the federal government and the

development of resort areas has produced an increase in the number of tourists. The oil fields around Hobbs and the potash mines near Carlsbad have contributed materially to the economic development of the area. Transportation facilities have not kept pace with this development.

"There is a community of interest between the cities proposed to be served and other cities on route 29 resulting in a substantial flow of commerce, and testimony of the Post Office inspector and other witnesses shows conclusively that the proposed service would expedite the handling of air mail. Although the population of the territory which would have the benefit of the availability of air transportation if the proposed service were inaugurated is small, the section has important tourist attractions and business interests which cause its transportation and communications requirements to exceed those of otherwise comparable cities.

"Furthermore, in the determination of the requirements of the public convenience and necessity, the number of persons who will be benefited by the proposed service is not the sole criterion, consideration must also be given to the extent of the benefit to the individual.

"If provided, as proposed by the petitioner, as a day visual-contact operation in conjunction with present operations over route 29, service to Carlsbad, Hobbs and Roswell, can be furnished at a relatively small cost to the government. In this connection consideration must be given to the additional postal revenues which would be induced by the additional service as well as the additional traffic which the proposed service would feed into other routes."

CHIEF STEWARDESS

Chicago & Southern Prepares Program for DC-3 Service on Apr. 15; Travis Appointed

Chicago and Southern Air Lines, preparing its stewardess training program in anticipation of inaugural flights with Douglas DC-3's on Apr. 15, has appointed Dorothy Travis, 27, as chief stewardess and instructor for the line. She will be in charge of the training program which will get under way during the latter part of February.

Salary scale for stewardesses, according to D. D. Walker, vice-president, will be \$2.50 daily during training; first 90 days of active duty, \$100 monthly; second 90 days, \$110 monthly; next six months, \$120 monthly; after second year, \$125 monthly; third year, \$130 monthly; fourth year, \$135, and fifth year, \$140 a month.

Miss Travis, who two years ago accepted a stewardess job with American Airlines, is a registered nurse, but the line will not require registered nurses as stewardesses, it was pointed out. Miss Travis will be stationed at the company's general offices in St. Louis.

voting stock, and 7,499 shares, or 17.04%, of the outstanding class B non-voting stock of that corporation. This stock is in the hands of the transfer agent of Northrop, and its release is dependent upon the performance of the company. Cohu also owns 11,100 (5%) of the issued and outstanding common stock of Air Investors, and 23,250 (8%) of its outstanding warrants, which warrants evidence the right to purchase said stock at \$10 per share. He owns no TWA stock.

Boeing School Opens Airline Pilot Course With Reduced Costs

A new airline pilot training course with reduced tuition aimed at meeting the increasing demand for co-pilots has been planned by United Air Lines' Boeing School of Aeronautics at Oakland, Cal.

While in the past airlines have obtained a substantial number of their co-pilots from the ranks of Army and Navy flying school graduates, that supply has been greatly reduced by the currently expanding military air forces, and the projected program is indicated as a step toward broadening the source of transport pilots.

The Boeing course will fit its graduates for requirements of airline co-pilots, R. T. Freng, director of United's flight operations, declared, and qualify applicants as pilots for commercial and instrument ratings and radio license.

For admission to the pilot course, the applicant must have completed two years of college work or the equivalent, be at least 20 years old, and in sound physical condition. The 15 months instruction, including flying, is offered at \$3,130, a 35% reduction. Enrollment in the new course will be restricted to 16 men quarterly.

Although United Air Lines has been recruiting many of its new employees from the Boeing school, graduates of the course will be available to other operators, according to T. Lee Jr., general manager of the school.

Two EAL Pilots Named

Eastern Air Lines has announced the appointment of two new pilots, Henry H. Osmer, 26, of New York City, who trained with the Army and formerly operated a flying school, and Andrew C. McDonough, 28, native of Mantorville, Minn., who trained at Pensacola and who has been flying in Naval Bombing Squadron III until two years ago when he was assigned as an instructor at Pensacola in the tactical division of the final squadron.

CAA

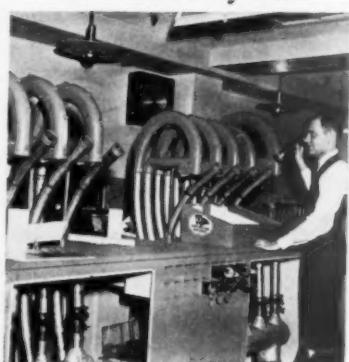
(Continued from page 1)

Type of equipment to be installed is substantially identical with that developed at the CAA's Indianapolis experimental station. This equipment was originally built by International Telephone & Development Co.

Four possible developments were recommended by the National Academy of Sciences conference group for study during the test with a view to their future incorporation in the systems if and when they prove useful.

They are: (1) longer and straighter glide path to replace the path of about five miles now available; (2) speedy and careful development by field and service tests of micro-wave equipment in the 750-megacycle category as compared with the 100-125 meg. used at Indianapolis; (3) further intense study of the indicating instruments in the airplane with particular reference to the cathode ray tube which promises to provide the pilot on a single indicator with information that must now be obtained by simultaneous observation of several instruments; (4) adaptation of all ground equipment so that it may readily be converted into portable units.

Scientists of the conference group who signed the report under the chairmanship of Dr. Vannevar Bush were: Oliver E. Buckley, Gano Dunn, W. F. Durand, Joseph Erlanger, B. Gherardi, L. J. Henderson, J. C. Hunsaker and Max Mason.



This system of pneumatic tubes is a part of the communications set-up installed for American Airlines at New York Municipal Airport. From this point, the operations department keeps in touch with agents and dispatchers at the terminal, approximately one-fifth of a mile distant, or with its men in hangars equally far away.



Douglas

THE KEYSTONE OF THE CAPITAL FLEET

Pennsylvania-Central Airlines "goes Douglas" in a big way with its "Capital Fleet" of 21-passenger DC-3s flying the key route of industry between Detroit and Norfolk. Penn-Central's selection of new Douglas equipment for an expanded service is added tribute to Douglas world leadership in commercial aviation. This leadership is best expressed by the fact that throughout the history of transportation no other public carrier has ever become so standard and universally accepted as the DC-3. Douglas Aircraft Co., Inc., Santa Monica, California.

IT PAYS TO  **FLY DOUGLAS**  **THE WORLD OVER**

Newark Asks Court to Review CAA Decision; Senate May Investigate

Your Favorite Radio Program
—as You Fly
TWA!



TWA Hostess Frances Ice explains to a passenger, how the pad-like receiver of the plane's radio system can be adjusted against her ear so that she can get the program without bothering other passengers.



Now, Hear the Market, News —anything on the air— while You're in the Air!

Now, to the scenic thrills, the comfort and convenience of air travel, TWA adds radio aloft. Individual Radio Receivers plug in at your seat—bring you programs without disturbing other passengers. An added convenience to air travelers—designed exclusively for TWA.



TWA Captain
Gives You
Flight Data
Through
Special
Hook-Up

Pilots can interrupt broadcasts to give you interesting flight data.

Next trip, enjoy this added convenience of radio programs aloft—on the Airline Run by Flyers.

For Information and Reservations
Call Your Travel Agent—or

TWA
TRANSCONTINENTAL
& WESTERN AIR, INC.

The Airline **TWA**
Run by Flyers
SHORTEST, FASTEST COAST-TO-COAST

The Civil Aeronautics Authority is now faced with both a court suit and a Senate investigation over its decision naming New York City as co-terminal with Newark for scheduled airlines serving the New York metropolitan area.

The City of Newark has asked U. S. Circuit Court of Appeals for the 3d District, Philadelphia, to review the decision of the CAA and has asked the court to vacate the order. Among the grounds upon which Newark bases its case are that the case was prejudged, that evidence did not warrant the naming of co-terminals, and that certain

data presented by Newark was excluded from the record.

On Jan. 14 Sen. W. Warren Barbour, Republican of New Jersey, introduced a resolution for an investigation of the CAA because of the Newark-New York decision. The resolution was referred to the Senate's Committee on Commerce of which Sen. Josiah W. Bailey of North Carolina is chairman, and of which Sen. Bennett Clark of Missouri is chairman of sub-committee on aviation.

Meanwhile Mayor Meyer C. Ellenstein of Newark circulated to members of Congress a brief entitled "The CAA Versus the National Interest" in which the CAA's decision was assailed.

3 Lockheed Lonestars Ordered by French Line

An order for three Lonestar transports has been placed with Lockheed Aircraft Corp., Burbank, Cal., by the French airline, Regie Air Africaine, for delivery in late March and early April.

New planes, which will cost approximately \$260,000 and which will be fitted with Pratt & Whitney Hornet engines, will supplement the line's present fleet of Lockheed 14's. They will be placed in service on the line's main route extending from Marseilles across Africa to the Island of Madagascar.

This order may have been included in a Lockheed announcement of recent foreign purchases, but neither Air Africaine nor plane models were named. (AMERICAN AVIATION, Jan. 15.)

'STEPPING STONE' EAL Considers Flight-Stewards Good Material for Other Departments

The profession of flight-steward "is serving admirably as a stepping stone to other branches of air transport," it was said by Capt. E. V. Rickenbacker, president and general manager of Eastern Air Lines, when he pointed out nine former EAL flight-stewards who now are working in advanced positions with the line.

"Because our flight-stewards provide a personal service in the passenger cabin, they are at all times close to the desires and needs of the air traveling public. Hence, we consider these youths excellent material for other departments of our company," Rickenbacker said.

Leonard Aughtry, formerly of Oklahoma City, and Frank Gibbs, formerly of Atlanta, are now working in EAL's operations department of San Antonio.

John Roddy, another ex-flight steward, formerly of Philadelphia, is now assigned to operations, Camden (N. J.) Airport.

James McGovern has been promoted to the New York city traffic office, and Edwin McKibbin, formerly of Johannesburg, South Africa, and Mort Peoples of Pittsburgh are now stationed at Miami in field traffic.

Paul Roti is now in the operations department of Houston. Russell Turner is in operations at Tampa. William Butler is now at Greensboro, N. C., where he is working in the operations department.

Eastern is the only domestic airline with flight-stewards in charge of passenger cabins.

Inland Ready for Dark

The 16 pilots and co-pilots of Inland Air Lines have passed an instrument flying examination under the CAA, qualifying for night flying over the line's route between Cheyenne and Great Falls. Night service is expected to be initiated in February.

Trophy Winner



For "consistent and meritorious patronage of air transportation," B. W. Franklin (left), Chicago attorney for National City Lines Inc., was named by Chicago and Southern Air Lines as its most valuable passenger during 1939. Presentation of the trophy was made by D. D. Walker (right), vice president of C & S.

The trophy, made from parts of a Hamilton Standard Propeller, was designed and executed by Tim Neilsen, C & S mechanig. On top of the trophy was mounted a chrome replica of a Douglas DC-3 transport, and affixed to the base was a plate reading "To B. W. Franklin—most valuable passenger—12,942 miles on Chicago and Southern Air Lines, 1939."

Newark Not to Close; AA Replies to Suit

Newark's airport continued to make the news headlines in January. American Airlines and Transcontinental & Western Air Inc. were served notice by Buildings Supt. Bigelow to dismantle their passenger stations, evidently as a means of forcing the two companies to move into the city's administration building.

American Airlines filed an answer to Newark's suit to collect \$130,923.43 in airport rents Jan. 9 by demanding \$100,000 from the city for the city's alleged failure to carry out the provisions of its lease with American. The company said it had been damaged to the extent by the city's failure to carry out the terms of the lease and renewal of the lease for 10 years dating from Aug. 11, 1938. The city's suit was filed Nov. 16, climaxing a long disagreement.

Continuance of Newark's airport despite some demand that it be closed has been assured with the signing of a lease with Eastern Air Lines calling for payment of a maximum of \$42,000 and minimum of \$34,000 rent for five years with renewal option for five years. The airline will have use of 51,000 sq. ft. of space in the new municipal hangar and 16,000 sq. ft. of ground outside to be used as parking and storage area.

The city estimates the airport operating costs will be \$185,000 for 1940, while revenue will be about \$90,000. A construction program of \$150,000 is contemplated.

BOA Board Appointed

The British Overseas Airways Corp. has been organized to take over the two well known British airlines, Imperial Airways and British Airways, but to date the name has not been adopted by the two lines. The board of "Boa," as the new government-controlled company is called, has been appointed.



Heininger

Heininger has been in charge of the Chicago office for more than two years, having previous connections with TWA as manager of the foreign department in New York. He will be stationed at C&S general offices, St. Louis, until the company establishes new headquarters at Memphis.

Heininger joined C&S in Nov. 1939, after eight years with Eastern Air Lines.

V.P. and Director



Leigh C. Parker

Has been elected director and vice president in charge of traffic of Delta Air Lines. He became associated with the line as general traffic manager following cancellation of mail contracts in 1934.

American Top User of Magazine Advertising

American Airlines and United Air Lines were among the largest general magazine advertisers during 1939, according to a compilation published in *Advertising Age* for Jan. 22. They were the only two aviation companies listed as having spent over \$100,000 for magazine advertising last year.

American spent \$122,975 in 1939, with the expenditures for previous years as follows: 1938, \$96,325; 1937, \$26,138; 1936, \$55,650. It ranked No. 234 in the list of largest users of magazine space, General Motors being highest.

United spent \$108,133 in 1939, with previous magazine expenditures as follows: 1938, \$110,600; 1937, \$94,149; 1936, \$61,229. United was No. 266 on the list in point of expenditures.

PCA Begins Ad Series

To introduce its new Capital Fleet of 1940 Douglas transports, Pennsylvania-Central Airlines recently placed the first of a series of ads in Detroit, Cleveland, Akron, Pittsburgh and Washington newspapers. Copy was prepared by George Mason, PCA's director of advertising, and his staff.

PCA Names Stations Chief

Edward Sullivan, assistant chief of stations and formerly district traffic manager at Cleveland for Pennsylvania-Central Airlines, has been appointed chief of stations by C. Bedell Monroe, president. M. A. Crowder, who has been in Pittsburgh for several weeks organizing the new department as temporary chief of stations, has returned to his post as station manager for PCA at Washington. Sullivan's headquarters are at Pittsburgh.

School Permit Awarded

Cheyenne, Wyo.—Exclusive rights to conduct a student flying school at Municipal Airport have been awarded Plains Airways Inc., Willis Walker, president, by the Cheyenne city council. Request for rights was approved and recommended by both Inland Air Lines and United Air Lines, transport operators at the field.

Three Airlines and Railroad Start Battle for New Midwest Routes

First new route hearing before the CAA involving competing applications of a railroad and existing airlines opened Jan. 22 when Braniff Airways, Mid-Continent Airlines, Continental Air Lines, and Kansas City Southern Transport Co., subsidiary of Kansas City Southern Railway, appeared before Examiner Francis W. Brown seeking certification for various midwest operations. Present as intervenor was Eastern Air Lines.

New routes sought by the several companies are Braniff, Wichita to New Orleans via Bartlesville, Tulsa, Shreveport and Baton Rouge; Kansas City Southern, Kansas City to New Orleans via Joplin, Tulsa, Muskogee, Fort Smith, Texarkana, Shreveport, Alexandria and Baton Rouge; Mid-Continent, Kansas City to New Orleans via Joplin, Bartlesville, Tulsa, Muskogee, Fort Smith, Texarkana, Shreveport, Alexandria and Baton Rouge; Continental, Wichita to Tulsa via Bartlesville, an extension of its existent Pueblo to Wichita route.

First two days of the proceeding were given to statements by convenience and necessity witnesses for cities in the area and at time of writing Charles E. Beard, Braniff vice-president-traffic, was sole company official having testified. Beard said his company was willing to serve any point along the route not included in its application, if that be found in the public interest, and introduced exhibits showing oil developments in the region. The oil industry creates air traffic, he suggested, because it is a highly competitive business requiring personal supervision, especially under pro-ration regulation.

Representing parties in the case are Irving G. McCann and Roger J. Whiteford, Braniff; John S. Wynne, Mid-Continent; Terrell C. Drinkwater, Continental; F. H. Moore, William E. Davis, J. R. Turney, Sr., and J. R. Turney, Jr., Kansas City Southern; George A. Spater and John Lorch, Eastern; Hubert A. Schneider and Joseph M. Paul, Jr., CAA.



In early spring, Chicago & Southern will inaugurate a new fleet of giant Douglas DC-3, 21 Passenger Planes.

IT PAYS TO FLY

EVERYWHERE

via

"The Valley Level Route"

North, south, east or west—fast, comfortable planes are waiting to carry you swiftly and safely to your destination.

Flying saves time, and time is money for business men. Successful men fly because they know the man who flies gets there first, sees more customers, signs more orders, makes more money for himself and his family. And they enjoy many real advantages over earthbound travelers because they avoid many tiresome days and nights on the road. They arrive at the end of their journey rested and refreshed, fit and eager for work or play.

next time you plan a trip

FLY

Low Air Travel Fares

*Washington-New Orleans	\$61.65
*New York-New Orleans	73.85
Chicago-St. Louis	12.45
St. Louis-New Orleans	33.69
Memphis-Chicago	26.38
Chicago-New Orleans	44.60
St. Louis-Memphis	13.93
Boston-Memphis	74.05
St. Paul-New Orleans	61.10
Chicago-Jackson	36.50
*via Chicago, St. Louis or Memphis	
**via Memphis	

10% reduction on round trips
For Reservations Call
Your Travel Agent or

CHICAGO and SOUTHERN AIR LINES
"The Valley Level Route"

Division Chairman

Frank B. Zoelle is the newly elected permanent chairman of the NWA division of Air Line Communication Employees Association.



Carson to B-M Board

H. A. Carson of St. Albans, Vt., general manager of Central Vermont Railway, has been elected a director of Boston-Maine Airways, the election having been approved by the CAA.

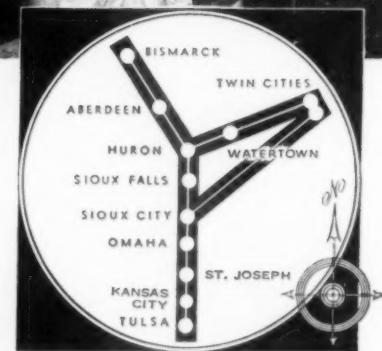


LODESTARS FOR MID-CONTINENT

The Lockheed factory hums with the activity of producing great new commercial transports to fill specific needs in airline operations. Above is pictured the construction on one of Mid-Continent Airlines' new Lockheed Lodestars.

Twenty million miles of flying experience is behind their choice of these new Lodestars. Progressive Thomas F. Ryan III, Mid-Continent president says, "It is of vital importance that we continue to go forward in selecting dependable airplanes. An airline calling at a dozen points within 1500 route miles must consider ruggedness and economy.

"Our passengers demand the same spaciousness and comfort as on longer flights. Speed is important when the distances covered are relatively small. We feel that the Lockheed Lodestar embodies all these necessary elements for a profit-making medium-size airliner."

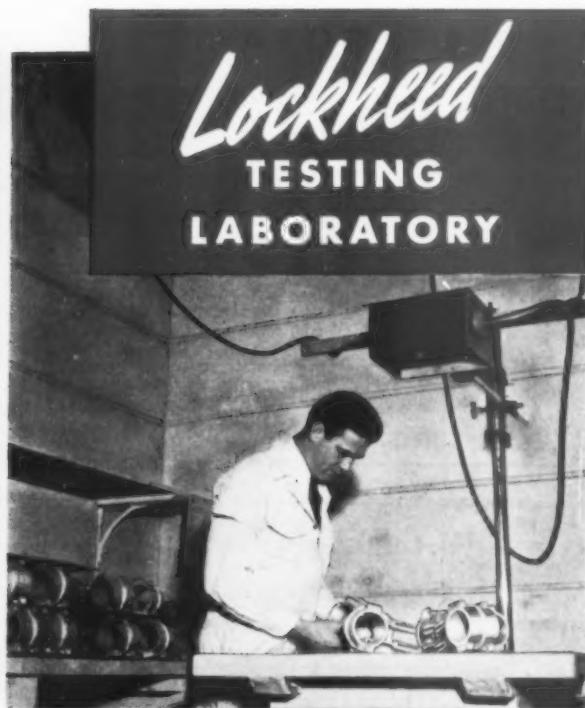


DAILY COMMUTER SERVICE is one of the features of Mid-Continent's airlines extensive mid-American routes. Passengers can transact full days of business in distant cities yet return by night. The entire United States is within an overnight journey by four connecting transcontinental services.

LOOK TO LOCKHEED



TENSION AND COMPRESSION TESTS are made to determine the properties of materials used and to test-prove new designs.



X-RAY TESTS guarantee 100% perfect materials for Lockheed construction. Five units are in use for this vital inspection.

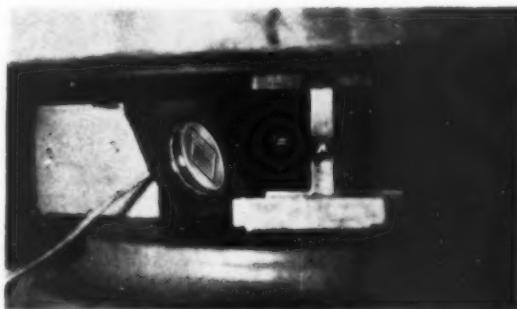
INDUSTRY'S MOST COMPLETE EQUIPMENT

The Lockheed testing laboratory handles thousands of Lockheed parts every year...subjecting them to every known type of diagnosis. An average of 517 stressed parts are X-Rayed each working day...144,972 in 1939...utilizing enough especially prepared radiograph film to form a 10-inch band around the earth, requiring 15,000 gallons of chemicals for its development.

Laboratory testing plays an important part in Lockheed airplane construction. A constant check is made on incoming materials; stress calculations on new design units are checked; suitable materials are determined; load characteristics are studied; weight and strength ratios are improved.

Delicate instruments and especially designed equipment permit every known type of test: Macro and microscopic; tension and compression; impact; fatigue; electrical; precision instrument; chemical; magnetic; and X-Ray.

LOCKHEED AIRCRAFT CORPORATION
BURBANK, CALIFORNIA, U.S.A.
REPRESENTATIVES THROUGHOUT THE WORLD



HIGH SPEED PHOTOGRAPHY: This picture taken at 100,000th of a second shows a material test on part of a landing gear structure at instant of fracture. Through the use of a microphone controlled camera, photographs reveal the manner of breaking.



FOR LEADERSHIP

AMERICAN AVIATION

The Independent Voice of American Aeronautics

Published the 1st and 15th of each month

WAYNE W. PARRISHEditor

ERIC BRAMLEY Assistant Editor-Magazine

GEORGE N. SHUMWAY ..News Editor

LEONARD EISERER Assistant News Editor

Editorial and business office, Earle Bldg., Washington, D. C. Published by American Aviation Associates Inc.; Wayne W. Parrish, president; Albert H. Stackpole, vice president; Edward J. Stackpole Jr., secretary-treasurer, 104 Telegraph Bldg., Harrisburg, Pa.

Address all correspondence to AMERICAN AVIATION, Earle Bldg., Washington, D. C.

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Subscription rates—\$3.00 per year, 15¢ per copy; Canada and Pan American countries—\$3.50; all other foreign—\$4.00.

Entered as second-class matter at the Post Office at Washington, D. C., with additional entry at Harrisburg, Pa.

AMERICAN AVIATION DAILY: Published six days each week except holidays, dispatched by air mail. A confidential news letter covering daily developments in aviation and the national capital. \$15 per month, \$85 for six months, \$170 per year. Service Bureau available to all subscribers. Special telephone District 1681.

Fortnightly Review

(Continued from page 1)

N.A.A. a reputation better than it has ever enjoyed. We expect to cooperate and urge cooperation, because aviation's public is in dire need of a broad, vital, intelligent, unbiased, fearless, leadership organization. Our best wishes are extended to a liberated N.A.A.

Fascism, Senator Barbour?

U. S. SENATOR W. WARREN BARBOUR, Republican from New Jersey, probably would be among the first to rise in horror at the thought of fascism in America.

A true fascist has no regard for democratic principles nor is he a respecter of the sanctity of courts of law. A fascist election ballot has only one candidate and the "X" is already marked for the voter. A fascist court gives only one decision—for the state.

Probably the New Jersey Senator was thinking only of his home constituents when he introduced a resolution calling for an investigation of the Civil Aeronautics Authority because, so he said, it had "pre-judged" the case in which it decided to name New York City as co-terminal with Newark for airline service to the metropolitan area. Probably the investigation which he requests is in order by itself; Congress certainly has the right to do all the investigating it desires.

But we believe Senator Barbour is treading on dangerous—and fascist—ground when he introduces a resolution calling for an investigation of CAA concurrently with the filing of a suit by the City of Newark in U. S. Circuit Court in Philadelphia asking the court to review the CAA's decision on the grounds that the CAA pre-judged the case and that the facts of the case did not warrant the naming of New York City as co-terminal.

Is Senator Barbour attempting to coerce the CAA into giving the "right" decision under threat of abolition of the independent agency? It would seem that way.

Congress created the CAA as a quasi-judicial independent agency of the United States Government. In other words, the Authority sits as a court. As such, it is subject to review by the courts in general and we doubt if the CAA is much disturbed about the U. S. Circuit Court's pending review of the Newark-New York decision. Such a review is perfectly in order.

But what is of concern is an effort by a Senator to turn around after Congress has created a court and threaten it because the decisions don't happen to please him. Is the CAA to understand that from here on it must give the "right" decision or be threatened with dismemberment? It is difficult enough for a new agency to have its decisions tested in courts of law without having a Senator use the privileges of his position to apply the big stick. If the case had not been taken to court, the Senator's resolution calling for an investigation might not be quite so much out of line, but we believe his present action is in bad odor.

This is still a democracy, badly as it sometimes functions. There is still a respect for the sanctity of courts and a democratic procedure for righting wrongs. The court test is proper; the Senate investigation is an affront, the sort of blustering exhibition of power and disregard for democratic procedure which the Senator would undoubtedly oppose and

disavow under other circumstances. Our concern here is not with the rightness or the wrongness of the CAA's decision, but with the threatened undermining of a valuable agency whose independence of action is more important and a more necessary heritage than all the blunderbuss fascist "direct-actions" put together.

Off the Reservation

WE FERVENTLY hope the Civil Aeronautics Authority will not accept without careful examination and consideration the proposed report of two of its examiners recommending that mail not be authorized on Pennsylvania-Central's Pittsburgh-Buffalo route. Rarely have we been in such complete disagreement with a CAA report as in this instance, although in all fairness it must be said that the examiners had little choice in their conclusions because of a prior decision made by the Authority in the Penn-Central rate case.

Penn-Central has been operating a non-mail service between Pittsburgh and Buffalo, two important industrial cities. On the route are two other important cities, Youngstown and Erie. The airline applied for mail. The Post Office Department certified that mail should be carried and testified to that effect at the hearing. And yet, the examiners report unfavorably on a proposition which would seem to be as clear and open as a cloudless blue sky in Arizona. We do not believe it to be in the legal, economic or moral province of the Authority to refuse authorization for air mail under such circumstances as pertain in this case. We believe certification by the Post Office Department should result in virtual automatic authorization by the Authority.

It is the duty of the Authority to authorize scheduled air transportation on grounds of public convenience and necessity. It is the duty of the Authority to examine air mail rates and to establish a fair and reasonable rate of pay. But it is for the Post Office Department to decide upon the use of air transport planes for the expediting of mail in the public interest. Here is an existing airline service. The Post Office Department not only should, but is anxious to, take advantage of this service to provide for movement of air mail. The Post Office Department has the job of moving the public's mail. It is morally bound to use the best available services to move that mail as expeditiously as possible. Thusly, it should purchase space on every air transport plane moving about the country, in the same way that it purchases space on railroads. It is not up to the Authority, in our opinion, to decide for the Post Office what services it should purchase; it is up to the Authority to determine a fair rate for the services purchased.

Perhaps there isn't enough mail at this time to justify a full mail rate comparable to the average now paid. But that is no reason for not taking advantage of an existing service and to pay according to its worth. It is not fair to industrial cities such as Youngstown and Erie to prevent them from having an air mail service, especially when the Post Office Department favors it. To our mind the examiners failed signally to consider the broad public interest in making this proposed report and we believe further that the Authority would be establishing an unfortunate precedent in public interest by adopting a report manifestly based upon reverse thinking.

Brushing Aside Mystery

IT IS no easy matter to get hard-bitten industry people enthusiastic about an air show. And yet the air show arranged by the Air Corps for Congress at Bolling Field in Washington Jan. 19-24 evoked unqualified plaudits from everyone. Speaking conservatively, it was the finest and most magnificent ground display of Army aeronautics ever held—a tribute to American industry and to the War Department. There was no flying—just two hangars filled with exhibits and a long line of airplanes representing every type of aircraft purchased by the Air Corps. But it was an awe-inspiring display made even more significant by the silence of the engines. It doesn't always take ear-splitting bombing maneuvers to demonstrate a sense of the overwhelming power of air force.

Primary purpose of the show was to educate Congress—to let the men who appropriate the money for national defense get a first-hand glimpse of what they were buying. To this end the show was an unconditional success, for never before has there been such an array of peace-time and war-time air equipment. Charts, photographs, signs and explanations made the show the most educational ever attempted. Secretary of War Woodring was so enthusiastic he persuaded the President to make the tour. The President was so enthusiastic he ordered the show kept open three additional days for the public. This is real educational progress. The War Department, the Air Corps and the industry representatives who worked hard to provide the best they had, are to be most highly commended. This is the type of show which should be repeated over and over again. It will pay dividends beyond compare.

Headin' South

PRIVATE civil aviation in America has again demonstrated that 600 airplanes can fly an average distance of 2,000 miles with a perfect safety record. The lightplane cavalcade, made possible by the cooperation of the manufacturers and Gulf Oil, has established another enviable record in its annual flight pilgrimage to Florida. No less than 582 airplanes were on Orlando airport at one time. Private flying is rapidly coming into its own. The putt-putts are demonstrating their ability to go places.

As for the annual Miami All American Air Maneuvers, the show this year had plenty of variety, although the military phase was rather lacking. The grandstands were filled for three days, the weather was fine and Miami citizens showed their usual ability for hospitality. But we have always thought, and still think, that Miami misses the mark in truly making the air maneuvers a major event of mutual benefit to Miami and to aviation. There is no lack of tireless, sincere work on the part of local citizens, but much more could be accomplished, it seems to us, if Miami would invite a genuine showman, such as Steadham Acker of Birmingham, to take hold of the annual event and make use of the very great possibilities which Miami never seems quite to grasp. Local civic spirit is not lacking but there's a limit to what civic spirit alone can do. What Miami needs is a professional touch, an experienced manager who knows how to run air events on schedule and who, in short, "knows the score." The time and place for the Miami maneuvers are ideal. Admittedly Miami's interest is in advertising the city. But why not do it professionally? Each year there are opportunities lost which would accrue to the benefit of America's greatest winter resort. It's not that Miami doesn't try—it's just that a lot of wasted energy could be saved by planning the maneuvers right from the beginning. Acker has demonstrated what can be done with far more limited facilities at Birmingham. What he could do for Miami would make history.

Incidentally what the Miami show has always needed, and what it still needs, is smart public relations and smart publicity. At the very least Miami ought to have someone handling publicity who "knows the score."

The CAA Goes Into Business

THE Civil Aeronautics Authority apparently feels constrained, for some reason, to infringe upon private business in the dissemination of news and information. For many years the late-lamented Bureau of Air Commerce published the *Air Commerce Bulletin*. It was free for the asking. Last year the CAA decided to charge a modest sum for this publication, and now, effective January 1, the CAA has launched a twice-monthly publication entitled *Civil Aeronautics Journal*. The price is five cents per copy or \$1.00 per year and the January 1 issue made its appearance Jan. 20.

This is all well and good because most of the contents are already known throughout aviation, but evidently the time has come when the various privately-owned and privately-operated aeronautical publications should find out from the CAA if it is the intention of that body to enter into open competition with established trade journals. The reason being that in the initial issue appears material which the CAA has not seen fit to release to the press prior to its appearance in the CAA's own \$1 a year sheet. Outstanding illustration is the nine months' report on domestic civil aircraft production which AMERICAN AVIATION, and probably other aviation magazines, has been requesting for two months. Because of the lateness of the news in the new and enlarged *Journal*, its appearance would seem to confuse, rather than clarify, the problem of dissemination of official CAA information.

If it is the intention of the CAA to compete with private trade journals by holding news for its own publication, then we predict some stormy weather ahead—and very low ceilings.

Inland Officers, Directors

Re-elected; '39 Report Issued

All officers and directors of Inland Air Lines were re-elected recently at the annual meeting of stockholders in Casper, Wyo. R. "Dick" Leferink is president; Wilfred O'Leary, chairman of the board; Marvin Landes, vice-president; G. G. Brooder and Allan McLellan, directors; Miss Ann Hemingway, secretary of the board; Judd B. Walker, traffic manager.

Company reported that in 1939 number of miles flown was 1,023,939 as compared with 540,520 in '38. Number of passengers carried increased from 4,176 to 7,663, and employees from 50 to 72.

Capital Notes

EXPEDITIOUS DELIVERY ON FOREIGN AIRCRAFT ORDERS is the underlying reason for the administration's appointment recently of a new interdepartmental committee to cooperate with foreign buyers of war supplies. War, Navy and Treasury Departments are chiefly concerned, with Secretary Morgenthau suddenly diverting his direct personal attention to the problem.

Actually the situation is far more serious and complicated than appears on the surface. The briefest analysis reveals an intricate maze of overlapping difficulties which can be roughly assorted into four principal categories: foreign exchange, taxation, plant expansion and engine production.

For some weeks aviation circles have been humming with rumors of tremendous aircraft orders, conservatively estimated at 8,000 planes, shortly expected from the coordinated British-French purchasing board. Simultaneously, top-ranking government officials began a quiet study of ways and means to allow the aviation industry to expand production capacities.

Faced with the necessity of conserving available resources, Great Britain and France have not been reticent in objecting to the large percentage of aircraft payments which finds its way into the U. S. Treasury as corporation taxes. Their attitude is that they should not be required to pay this bounty for the privilege of doing business in this country, at a time when every dollar counts. Our government meanwhile welcomes the foreign business as a means of building up aircraft production capacities in the event of an emergency.

If the industry is to expand to handle this huge potential business, who is to pay the cost? One plan under consideration which would go far toward solving both expansion and tax problems is the suggestion that a larger percentage of profits be authorized for plant enlargements, this expense then becoming deductible from tax payments. Otherwise the foreign countries concerned would have to finance new factory construction here, involving the dubious principle of foreign investment in the American munitions industry; or the aircraft companies would have to foot the bill themselves, which they are reluctant to do. Probably the arrangement suggested could be made under the Treasury's closing agreement authority without additional legislation—if this solution is accepted.

Aircraft engine production looms up as a major difficulty in this complexity of problems. Morgenthau, who is personally visiting aviation plants in various parts of the country, recently stated that while engine production has so far kept pace with demands, it cannot meet future increased business without considerable expansion. Some solution must be devised to prevent this phase of the industry from becoming the bottleneck of aviation manufacturing.

Foreign buyers meanwhile are beginning to place orders under the new purchasing program. These will be governed by whatever policies the administration formulates to ease the delivery problem.

CONGRESSIONAL TRENDS TOWARD ECONOMY are reaching out to cut into aircraft purchases for our own national defense program. Already the only two appropriations bills containing money for aircraft, which have so far been considered by Congress, both indicate that not even the air forces can escape the paring knife. The Senate Appropriations Committee deleted from the Supplemental Defense bill \$6,075,000 for the purchase of 81 scout bombers for the Navy; the House Committee allowed only \$500,000 of a \$2,199,000 request for airplanes for the Coast Guard's neutrality patrol.

An indication of the Senate Committee's attitude toward economy was brought out in the Navy disallowance. Although committee members blamed the cut on the inability of manufacturers to complete orders within the specified time, it was learned that actually the Navy was ordered by the committee to reduce its total request by a certain lump sum. This aircraft item was then selected for deletion by the Navy as it did not entail the abandonment of an entire project. In this light, therefore, it appears that the Senate Appropriations Committee may be tending toward a policy of subtraction as a general principle, although it is still too early to know whether the precedent will be applied to all supply bills as they come through.

THE NAVAL EXPANSION PROGRAM is shrinking fast. Originally a six-year, \$1,300,000,000 proposition, it was reduced by half, with Representative Vinson now considering a sharply curtailed vessel and aircraft authorization limited to two years. Adm. Towers, chief of the Bureau of Aeronautics, estimates that 4,900 planes would be sufficient to complement this surface fleet, although admitting that the 6,000 proposed would be desirable in case of emergency. Consequently it is expected that Naval air strength will be finally set at close to 5,000 airplanes with the lighter-than-air craft authorizations similarly reduced or eliminated completely.

Aircraft procurement regulations, greatly liberalized in the original draft of the expansion bill, are restricted in the revised version as predicted in this column. The section authorizing negotiation of contracts has been killed as "neither necessary nor good business." Walsh-Healy and profit limitation provisions have been included.

ARMY AIR STRENGTH is now expected to remain close to 6,000 in spite of support from various Congressional sources for an air corps of 8,000 to 10,000 planes. Chairman May of the House Military Affairs Committee, following a secret committee meeting with the Secretary of War and Chief-of-Staff Marshall, remarked that no new legislation will be offered augmenting the Army Air Corps. Consensus of opinion appears to indicate a preference for completion of the present military aviation program before inaugurating a larger one.

A YARDSTICK FOR AERONAUTICAL RESEARCH is attracting new interest although the proposal was thought dead when the last session ended. Sen. Lister Hill, however, is again urging attention to his pending bill and has succeeded in having a subcommittee appointed from the Military Affairs Committee to go into the matter further.

AIR CARRIER RECORD

(C. A. A. Applications, Hearings, Dockets)

CERTIFICATE GRANTED

Canadian Colonial Gets Certificate

Canadian Colonial Airways Inc., on Jan. 11 received from the CAA its "grandfather" certificate of convenience and necessity for mail-passenger-express operations between New York and Montreal via Albany.

APPLICATIONS

Mid-Continent Asks Bismarck-Minot Line

Hearing was held Jan. 19 before CAA Examiner Thomas Wrenn on the application of Mid-Continent Airlines for extension of AM26 from Bismarck to Minot, N. D. Complete story on page 10.

TWA Asks Pittsburgh-Boston

TWA has filed application with the CAA for a mail-passenger-property route between Pittsburgh and Boston via Williamsport, Binghamton and Springfield. Complete story on page 8.

Braniff Amends Application

Braniff Airways has filed an amendment to its application for a Denver-San Antonio route to extend the line beyond the latter point to Laredo, Tex. Intermediate stops requested are Colorado Springs, Pueblo, Amarillo, Lubbock, Big Spring, San Angelo and San Antonio.

PROPOSED REPORTS

New Stops Recommended for Continental

CAA Examiners C. Edward Leasure and Robert J. Bartoo on Jan. 20 issued a proposed report recommending that Continental Air Lines be granted permission to stop at Carlsbad, Hobbs and Roswell, N. M., on AM29. Complete story on page 12.

Penn-Central's Pittsburgh-Buffalo Report

CAA Examiners Francis W. Brown and Thomas Wrenn on Jan. 18 issued a proposed report recommending that the CAA find Pittsburgh-Buffalo mail service on Pennsylvania-Central Airlines not required by public convenience and necessity. Non-mail stops at Erie, Pa., and Youngstown, O., were recommended. Complete story on page 10.

Exceptions to C. C. Darling Report

Canadian Colonial Airways and Hubert Schneider, CAA attorney, have filed exceptions to the proposed report of CAA Examiner Lawrence Kosters, which recommended that the application of C. Coburn Darling for permission to serve as a director of the airline while holding similar positions with Aviation Corp. and Roosevelt Field be denied.

To the examiner's statement that "the record . . . shows that the president and a vice president of American Airlines hold certain shares of stock in Canadian Colonial Airways Inc." both Schneider and Canadian said: "Exception is taken to this statement for the reason that it carried with it the implication that the president and vice president of American are the beneficial holders of shares of stock in Canadian Colonial Airways Inc., whereas the record clearly indicates that the shares of stock . . . held by them in their name are held in trust as a result of the Air Mail Act of 1934, and that the shares are to be distributed to other persons upon the happening of certain events." Exception was taken on the same grounds to Kosters' statement that "in addition, certain stockholders and officers of American Airlines also have substantial financial interest in Canadian Colonial Airways Inc."

Canadian Colonial also took exception to the conclusion that Aviation Corp. has a substantial interest in American, and that a director holding office on the boards of Canadian Colonial and Aviation Corp. would be able to exercise a voice in the affairs of two airlines. The exception states that the "substantial interest" mentioned . . . is in debentures of American Airlines and not in the stock of that company, and accordingly there is no basis in theory or fact for the conclusion in the second sentence."

LaMotte Cohn Report Released

CAA Examiner C. Edward Leasure on Jan. 12 released a proposed report on the interlocking directorate applications of LaMotte T. Cohn, Northrup Aircraft, Air Investors and TWA. Complete story on page 12.

HEARINGS

UAL-WAE Acquisition Hearing Ends

Hearing ended Jan. 17 before Special CAA Examiner Roscoe Pound on the application of United Air Lines for approval of acquisition of Western Air Express. Complete story on page 8.

Eastern-National Oral Argument

Oral argument was held Jan. 24 on the examiners' report recommending that National Airlines be allowed to operate between Orlando and Jacksonville. Complete story on page 21.

Kansas City-Memphis Hearing

Hearing was held Jan. 8-17 before CAA Examiners Francis W. Brown and J. W. Belt on applications of Braniff Airways, Eastern Air Lines, and Chicago & Southern Air Lines for Kansas City, Mo. to Memphis service. Complete story on page 22.

Midwest Routes Hearing

Hearing on applications of Braniff Airways, Kansas City Southern Transport Co., Mid-Continent Airlines, and Continental Air Lines for various midwest routes opened Jan. 22 before CAA Examiner Francis W. Brown. Eastern Air Lines appeared as intervenor. Complete story on page 15.

American-Marquette Investigation Ends

CAA hearing on investigation of contracts between Marquette Airlines and American Airlines concluded Jan. 23. Complete story on page 8.

American Export Oral Argument

Oral argument was held Jan. 22 before CAA Examiner C. Edward Leasure on the applications of American Export Airlines for trans-Atlantic certificates to England, France and Italy. Complete story on this page.

INTERLOCKING DIRECTORATES

PAA and Panagra Directorates Approved

The following interlocking directorates have been approved by the CAA: Harold J. Roig, Robert H. Patchin and William F. Cogswell, in connection with Pan American-Grace Airways; Mark McKee and Pan American Airways Inc.; and Col. J. Clawson Roop and John S. Woodbridge with PAA Corp., PAA Inc., PAA (Del.), PAA (Nev.), Pacific Alaska Airways, Panagra, Panama Airways and Uraba, Medellin & Central Airways.

Calendar of Hearings

Feb. 5—Braniff Airways, re-opening of air mail rate case.

Feb. 7—Trans-Canada Air Lines, "grandfather" route from Seattle to Vancouver, new routes Toronto-Buffalo, Toronto-New York and Toronto-Detroit.

Feb. 14—Northwest Airlines, Pennsylvania-Central Airlines, Canadian Colonial Airways, on NWA's Chicago-Toronto-New York application, PCA's Buffalo-Toronto, and Canadian Colonial's Toronto-New York.

Important Issues Defined in Oral Argument on Export's Applications

American Export Airlines and Pan American Airways engaged in important oral argument Jan. 22 before CAA Examiner C. Edward Leasure on the former company's applications for trans-Atlantic routes to England, France and Italy.

Hearing on the case, at which Pan Am was present as intervenor, concluded Jan. 10. Examiner Leasure called for oral argument in order that the important issues involved in the proceeding might be more clearly defined. Briefs are due Feb. 7, following which Leasure will issue a proposed route.

Urging the granting of the applications, Gerald B. Brophy, Export's attorney, stated that his company is fit, willing and able to perform the service, and added that the routes requested are in the public interest. Export, he explained, reached the conclusion that nonstop service was in the public interest before Pan Am began operations.

Points developed by Brophy included: Export offers an improved service, more than one service is required by the national defense, competition is desirable, it is not necessary for Export to possess landing rights in foreign countries before getting certificates. Export's tie-up with American Export Lines steamship company is an advantage, and the case deals with the greatest trade route in the world.

The improved service offered by Export is required mainly by two conditions, Brophy said, naming (1) poor sea conditions at Horta in winter when a stop at that point is most needed, and (2) fog conditions at Botwood. The preliminary mail-express service to be offered with the twin-engined Consolidated 28 flying boat "furnishes the means of putting into operation a going organization," he explained.

"Competition produces honesty, economy and efficiency in air transportation," Brophy asserted. The mere threat of competition has had the threat of evoking "at least a promise" of improved service from Pan Am, he stated, adding that competition will be a spur to U. S. manufacturers to develop larger and more advanced equipment.

"I say that in the last analysis the only real question to be decided here is whether this country is to be represented in trans-Atlantic air transportation by only one operator, because if this applicant fails, it will be notice to the country generally that experience in transoceanic operation and in the traffic problems incident thereto, and of reasonable preparation for the inauguration of a trans-Atlantic air service count for nothing," Brophy said.

Henry J. Friendly, Pan Am attorney, stated that the real issue in the case is whether the CAA intends to weaken the American position on the Atlantic by dividing the traffic, financial support, etc., between two companies. If the CAA grants Export's application, he claimed, it will be saying to Pan Am: "You have worked on a trans-Atlantic operation for 10 years . . . You have plans to operate a really commercial service of more than two trips a week . . . You can furnish all the new service required . . . As a reward, we are going now to put another American company in operation, paralleling your route."

Pan Am, Friendly said, will be faced with competition from "powerful, heavily subsidized" European companies. The CAA, in granting Export's applications, will be placing an additional burden of \$1,000,000 a year on the American taxpayer to have two weak companies instead of one strong operator, he contended. Only by having a strong operator, he continued, can developments such as the 300-mph, 50-passenger non-stop plane contemplated by Pan Am be encouraged. Granting of the applications, he said, "threatens a complete reversal" of the policy the U. S. has followed to date, and may put trans-Atlantic aviation in the same position as U. S. steamships where "America furnishes the traffic and the other countries get the business."

Friendly criticized the proposed Consolidated operation, stating that the CAA is being asked to "take a step backward toward a mail service." Pan Am, he emphasized, is ready, willing and able to operate any additional service needed.

Friendly twice quoted from the 1935 report of the Federal Aviation Commission as follows: "If American airlines are to compete with lines under foreign direction it would be an obvious absurdity to divide the American strength by competition among a multiplicity of American flag enterprises. The aid that is appropriated for foreign air transport in any particular part of the globe ought not to be squandered by dividing it among two or more competitors who will use government-provided funds to duplicate each other's facilities. The spur to progress that only competition can supply should be adequately furnished by the foreign competitors"

Samuel E. Gates, CAA attorney, in a short statement expressed the opinion that foreign landing rights should be available before the issuance of a certificate. If they were not available, the applicant would be "fit, willing but unable," he said, adding that the CAA would be granting a certificate "that had no value."

Kansas City Releases Annual Passenger and Mail Figures

Kansas City, Mo.—Number of passengers arriving, departing or passing through Kansas City Municipal Air Terminal during 1939 was 100,601 compared to 91,020 in 1938. Air mail poundage increased from 868,338 lbs. in 1938 to 965,787 last year.

Passenger and mail figures for other years were announced as follows:

	Passengers	Mail
1931	20,702	3,000
1932	31,266	407,524
1933	42,859	329,885
1934	33,189	288,214
1935	56,492	602,039
1936	75,981	784,688
1937	78,383	824,698

Agriculture Takes 2 Rearwings

Rearwin Aircraft & Engines Inc., Kansas City, Kan., has delivered two 90-hp. Sportsters to the Agriculture Dept.'s bureau of entomology and plant quarantine for use in grasshopper control.

All Over Denver

Continental Air Lines, through General Outdoor Advertising Co. Inc., has placed 18 billboard designs like the one above at main arteries of travel within the city limits of Denver. Six of the billboards are illuminated, the remaining 12 being standard 24-sheet posters.

The posters, which went up in mid-January, are expected to test the value of billboard advertising in the pushing of a special educational fare. Round trip fare to Wichita has been reduced from \$44.80 to \$31 during the campaign. The advertising agency estimates that 112,000 Denver people read the Continental message each day.

Proposed Orlando-Jacksonville Route of National Protested by Eastern

Protest of Eastern Air Lines against recommendation of a CAA examiners' report that National Airlines be granted an Orlando-Jacksonville route and that various EAL applications be denied was the subject of oral argument before the five members of the Authority in Washington on Jan. 24.

At the hearing, National had sought routes between Jacksonville and Lakeland via Gainesville and Ocala, and Jacksonville-Lakeland via Daytona Beach and Orlando. EAL asked Jacksonville-Tampa-Miami and Tallahassee-Ocala-Orlando. Examiners C. Edward Leasure and Robert J. Bartoo recommended Orlando-Jacksonville, stating that "service via Orlando would result in a more efficient operation." The extension would connect National's routes 31 and 39.

Gerald B. Brophy, EAL attorney told the CAA that "the examiners have recommended something entirely different from that requested by National in this case," and "completely disregarded" the fact that they were creating the shortest spur on the air mail map —between Orlando and Daytona Beach.

Brophy urged that EAL's AM40, Tampa-Memphis and Tallahassee-Atlanta, should be extended into Miami. "Route 40 stops short of the ultimate destination of the overwhelming majority of the persons traveling to Florida," he stated, adding that the route "is just not performing an economic function." Traffic that should be reaching Miami over this route is now entering Florida on AM10, Chicago-Jacksonville, he pointed out. Stopping AM40 at Tampa would be like stopping American Airlines' AM23 at Washington because EAL operates between Washington and New York, he said.

Eastern has never interfered with National's function of carrying local business, Brophy stated, adding that southbound AM40 schedules from Tampa to Miami would be too early in the day to attract local passengers, while northbound they would be too late.

William I. Denning, National attorney, supported the examiners' report, stating that the AM31-39 tie-up would connect the west coast of Florida with the Jacksonville gateway. Eastern, he said, had attempted to "obscure the issues." If EAL were granted permission to operate between Jacksonville and Miami via Tampa, the company would fly over NAL's route, he contended. NAL, he said, can furnish

all the service needed.

There would be "no possible excuse" for NAL's existence if EAL operated Tampa-Miami, Denning said. If EAL were also to fly Jacksonville-Tampa direct, NAL would probably carry one passenger a month over its route from the east coast, he added.

New Orleans Revises Hangar Rates; Now Based on Poundage

New Orleans, La.—Rates for hangar space at New Orleans Municipal Airport were revised at a recent meeting of the airport commission presided over by Leon G. Tujague.

Old rates were based on wing spread of planes. New ones, effective Jan. 1, are based on poundage. Planes under 1,000 lbs. will be charged \$1.25 a day, but the monthly rate, \$15, will remain the same.

Larger planes formerly paid a flat fee of \$25 monthly. Under the new schedule, they will pay a maximum of \$10 daily (10,000 lbs.) or \$110 monthly. Rate is graded down on poundage. Airlines were given rates on special contracts.

Application of Kansas City Flying Service to establish a flying school at the airport was approved by the commission.

Cleveland Show Feb. 24-Mar. 9

More than 40 manufacturers of aircraft and aircraft parts have been invited to participate in an aviation show which will be staged in Cleveland beginning Feb. 24 and lasting through Mar. 9 under the sponsorship of the May Co., Cleveland department store. Schools, colleges and governmental institutions are lending their support to the show, according to Robert Hayes Gries, manager of the May Co. He said the show will be held on the store's seventh floor.

Obituary

EDWARD B. BROWN, chief accountant for Inland Air Lines, died recently at Casper, Wyo.

HENRY LEE HEAVNER, 37, North Carolina pilot, died on Jan. 8 at Lincolnton, N. C.

MELVIN E. MUIR, flyer of St. Petersburg, Fla., died Jan. 8 near Ona, Fla.

GEORGE MALLORY PYNCHON JR., a former director of Consolidated Aircraft Corp. and an early member of the board of managers of the Aviation Country Club of Long Island, died at his home at Jericho, N. Y., on Jan. 15. The son of George M. Pynchon, Wall Street broker, in 1934 he was a director of Aviation Protection Inc.

Mechanics Course

Started by United

Establishment of an airline mechanics training course providing three years of instruction at United Air Lines' repair base, Cheyenne, Wyo., was announced Jan. 16 by Thomas B. Marshall, United director of personnel.

"The course, which will be the only one of its kind in the world," the announcement read, "is being started at once. To train men as airplane and engine mechanics, it will be open to young men between the ages of 18 and 25 who have completed high school and have a minimum of one year's training in a government approved school, or its equivalent."

Part of the instruction will consist of actual work in overhauling planes from the line and graduates of the course will be eligible for employment at United's operating points. The class, Marshall indicated, will be limited to 24 new students yearly.

Ken Rearwin Comments on Cloudster After Trip

Kenneth Rearwin, secretary-treasurer of Rearwin Aircraft & Engines Inc., Kansas City, Kan., with Mrs. Rearwin, recently made a flight in a new Rearwin Cloudster from Kansas City to the west coast. Following the trip, he said:

"We left our field (Fairfax Airport, Kansas City) at 1:45 p.m., made a stop and landed at Amarillo, Tex., at 5:55 p.m. 500 miles. . . . The ship performed perfectly . . . No tingling in the hands after landing. Conversation is easy and the ship cruises about 120 mph. with full load . . . We averaged about seven gallons per hour at 2,050 rpm. and used four quarts of oil in about 16 hrs., including demonstrations, at a speed of 120 mph."

Ross Named Chief of CAA's Reference, Research Section

Cecil A. Ross recently was appointed chief of the CAA's reference and research section under the director of statistics and information, it was announced in the *Civil Aeronautics Journal*.

Ross who holds an A.B. degree from the University of Michigan, from 1929 to 1935 was assistant chief of the division of aeronautics of the Library of Congress. In 1936-37 he directed production of the bibliography of aeronautics which was prepared under sponsorship of the Institute of the Aeronautical Sciences.

Many United Employees Get Pay Increases and Bonuses

More than 400 employees in United Air Lines' maintenance base at Cheyenne, Wyo., recently received pay increases amounting to approximately \$45,000 annually, according to W. P. Hoare, superintendent of operations. He added that the increase was effective for other company employees elsewhere and would aggregate approximately \$200,000 annually.

Approximately 2,000 of United's personnel recently received bonus payments based on years of service with the company. Payments ranged from a minimum of \$10 to a maximum of \$100 per employee.

UAL Appoints John Cisler

John Cisler, an employee of United Air Lines since 1932, has been appointed assistant superintendent of reservations for the line with headquarters in Chicago. He is the son of Stephen A. Cisler, one-time superintendent of air mail service for the Post Office Dept.

Four Seaplane Units Established at Colleges

Seaplane training units are being established in four of the 435 colleges participating in the civilian pilot training program, the CAA announced recently. Units are being made up of 10 students each who will be given specialized instructions in marine operations and overwater flying, as a further step in the Authority's program to develop seaplane flying on a wider scale.

During the last summer 39 students from colleges conducting the experimental program successfully completed six weeks training in seaplanes at Boston and Seattle.

Colleges selected for the broader seaplane course during the coming year follow:

State Institute of Applied Agriculture, Farmingdale, N. Y. one unit; McKinley Pneumatic Float Corp., Babylon, N. Y., operator. University of Miami, Miami, Fla., one unit; Embry Riddle Co., Miami Beach, Fla., operator. Morris Harvey College, Charleston, W. Va.; one unit; Kanawa Flying School, Charleston, University of Washington, Seattle, Wash.; two units; Kurtzer Aircraft Corp. and Washington Air Service, Seattle, operators.

AITI Building Completed

A new building, to be used in both shop training and for lecture purposes, was completed in January for Aero Industries Technical Institute, Los Angeles, giving the school six buildings for mechanics and engineering training. Another new building was completed last August for AITI.

PARKS Trains Men to Grow With You



THE Curriculum of Parks Air College is carefully designed to give its students basic training that enables them to grow with the years and with the industry.

The essential function of Parks is to give the aviation industry its best new personnel, that is, personnel with capabilities for eventual leadership.

That Parks achieves these aims is proven, not only by the fact that the demand for Parks trained men often exceeds the supply, but by the careers of Parks graduates in the industry who have risen to positions of responsibility and leadership.

When contemplating additions to your own personnel, it will pay you to consider Parks. A letter to Oliver L. Parks, President, will bring you full information.

PARKS AIR COLLEGE, Inc.
East St. Louis, Illinois

C. A. A. ACTIONS

(Pilot Certificates, Letters of Authority, Publications, Miscellaneous. For Airline Regulation, See Air Carrier Record. Serial Numbers of Orders and Dates in Parentheses.)

Pilots Suspensions

Walter J. Fitch Jr., Coshocton, O., limited commercial pilot certificate No. 22-398 suspended for a period of 60 days insofar as such certificate authorizes the navigation of aircraft with passengers aboard, for giving flight instruction for hire without holding a valid instructor rating. (Jan. 9, 323).

Charles P. Loring, Auburn, Me., solo pilot certificate No. 50183 suspended for 60 days from Nov. 25 for piloting an aircraft carrying a person other than a certificated instructor actually giving instruction, and other violations of the Civil Air Regulations. (Jan. 12, 326).

Donald L. Frahm, Monolith, Cal., solo pilot certificate No. 60806 suspended for period of 30 days from Jan. 5 for piloting an aircraft carrying a person other than a certificated instructor actually giving instruction. (Jan. 19, 341).

Norris Norsigian, Tulare, Cal., student pilot certificate No. 65559 suspended for a period of 30 days from Jan. 9 for piloting an aircraft on a civil airway carrying a person other than a certificated instructor actually giving instructions, and other violations of the CAR. (Jan. 19, 342).

Revocations

Walter E. Dickey, Carthage, Mo., private pilot certificate No. 49591 revoked for piloting an aircraft, carrying three passengers, acrobatically over the Carthage, Mo., Airport at a height less than 100 ft. above the ground, and other violations of the CAR. (Jan. 12, 324).

Robert J. Hanley, West Los Angeles, Cal., temporary student pilot certificate revoked for piloting an aircraft on a civil airway outside an area within a 25-mile radius of the point of take-off, and other violations of the CAR. (Jan. 12, 325).

Phillip A. Mann, Van Wert, O., private pilot certificate No. 64985 revoked for piloting an aircraft acrobatically over an open-air assembly of persons and for not being equipped with a parachute on said flight. (Jan. 16, 336).

Civil Penalties

The CAA (Jan. 12, 327) accepted certain offers in compromise of civil penalties incurred for violations of the Civil Aeronautics Act and the CAR as follows: **Norbert C. Barwasser**, Moline, Ill., for piloting an aircraft on a civil airway without being possessed of a pilot certificate, and other violations, \$50.00; **Kneale R. Chamberlain**, St. Joseph, Mo., for piloting an aircraft on a civil airway without being possessed of a valid pilot certificate, \$25.00; **Ennis E. Edwards**, Cincinnati, O., for piloting an aircraft on a civil airway without being possessed of a valid pilot certificate, \$100.00; **Charles O. Gilbert**, Boise, Idaho, for piloting an aircraft on a civil airway carrying persons other than certificated instructors actually giving instruction, \$100.00; **Charles E. Jacobson Jr.**, Bethel, Alaska, for piloting a certificated aircraft without being possessed of a pilot certificate, and other violations, \$100.00.

Referred to Dept. of Justice

The following cases (Jan. 16, 334) were referred to the Attorney General for judicial action for certain violations of the Civil Aeronautics Act and the CAR: **O. L. Holden**, Ft. Worth, Tex., for piloting certificated aircraft on several occasions without being possessed of a valid pilot certificate, one flight also having been made on a civil airway; **Aleck Barthule**, Townsend, Mont., for piloting an aircraft on and across various civil airways without being possessed of a valid pilot certificate, and other violations.

Miscellaneous

The application of **Bruce L. Dunbar**, Boston, Mass., for a private pilot certificate was denied (Jan. 16, 335). The CAA also (Jan. 16, 338) ordered **R. S. Johnson**, Houston, Tex., whose aircraft and aircraft engine mechanic certificate No. 3870 was suspended on Dec. 28, to appear before a CAA examiner to show cause why this certificate should not be revoked in whole or in part, or further suspended in whole or in part.

Sperry Honors Employees

Sixteen employees of Sperry Gyroscope Co., Inc., Brooklyn, N. Y., having completed 20 years of service during the last year, recently were honor guests of the Sperry Employee's 15-Year Club. R. E. Gillmore, company president, presented a gold watch or a silver service to each of the honor guests. Club now numbers 250 employees, and of this number 163 have completed 20 or more years with the company. Frederick E. Narvesen, assistant chief engineer and club president, presided at the meeting. Carl F. Carlson, foreman, electrical department, was chairman of the entertainment committee.

Des Moines Rebuilding Hangar

Des Moines, Ia.—City council has given final approval to a construction contract with Garmer-Stiles Co. for rebuilding and repair of the hangar at Municipal Airport which was burned recently. Work will cost \$14,500.

Pitt Board Appointed

Pittsburgh, Pa.—Three new members—Dr. John J. McLean, George Thorp and Russel Hay—have been added to the Allegheny County Aviation Advisory Board and five former members were renamed to the board. Col. Harry C. Fry Jr. was renamed chairman of the board and Raymond A. Tucker remains as secretary. Other members are Harman Denny Jr., Carl Forcier and Ray Marlier. Dr. McLean recently completed four years as director of aviation for the county.

United DC-3's to Des Moines

With the completion of improvements at Municipal Airport in Des Moines, Ia., United Air Lines has inaugurated Douglas Mainliner service to that city. One DC-3 schedule in each direction now stops at Des Moines. Douglas service is supplemented by Boeing 10-passenger flights, providing the city with a total of 10 arrivals and departures daily.

Braniff, Eastern, C & S Airlines Seek Kansas City-Memphis Route

Memphis to Kansas City, Mo., operation was sought by Braniff Airways, Eastern Air Lines, and Chicago & Southern Air Lines in hearings before CAA Examiner Francis W. Brown and J. W. Belt, Jan. 8-17. While an intermediate stop at Springfield, Mo., was included only in applications of Eastern and Chicago & Southern, Braniff was declared by Robert J. Smith, vice-president-operations, to be ready to serve Springfield should the CAA find such a stop desirable.

The projected route, Capt. E. V. Rickenbacker testified, would provide needed local service from Kansas City to Memphis, there being available at the same time through connection into Florida and the southeast. The new service, if granted to Eastern, he said, would increase revenue derived from AM-40, Memphis-Tampa, now an unprofitable operation.

Charles E. Beard, Braniff vice-president-traffic, and D. D. Walker, Chicago & Southern vice-president-traffic, concurred in the opinion that the bulk of business along the proposed route would be of local nature, terminating at either Memphis or Kansas City, while Carleton Putnam, Chicago & Southern president, expressed belief that of the through traffic the predominant flow would be to Jackson and New Orleans, cities now served by his company. Bruce E. Braun, Chicago & Southern vice-president-operations, in discussing the removal of that carrier's operating

base from St. Louis to Memphis next fall, declared that Chicago & Southern would be in best position to operate the new route since it will be able to exercise centralized flight control and communication, with no aircraft at any time being more than 500 miles from its base.

Other airline officials giving testimony were Paul H. Brattain, vice-president, and J. W. Moore, assistant secretary and assistant treasurer, for Eastern, and Amos Culbert, vice-president-treasurer, for Chicago & Southern. Counsel were Roger J. Whiteford and Irving G. McCann, Braniff, E. Smythe Gambrell and George Spater, Eastern; Amos Culbert and Carleton Putnam, Chicago & Southern; John H. Wanner and John G. Sarber, CAA.

Bone Replaces Beggs

Al Bone, former assistant to Charles Rheinstrom, vice president in charge of sales for American Airlines, has been appointed western sales manager at Los Angeles, replacing Arthur Beggs, who has been transferred to Cleveland.

AA Airport Sold

Murfreesboro, Tenn.—Three Murfreesboro business men—R. B. Womack, Robert C. Lipscomb and Tillman Hayes—have purchased the airport at Sky Harbor, established 10 years ago, from American Airlines for \$16,000. Property contains 188 acres and is located seven miles northwest of here.

Sam Solomon Toasted



Celebrating the 10th year of a perfect safety record at Washington Airport, aviation folk of the nation's capital gathered at the airport's Hangar Club New Year's Eve for the annual party and toasted Sam Solomon, manager of the airport, who was host to the affair. Telegrams congratulating Solomon on the field's safety record from C. Bedell Monroe, president of Pennsylvania-Central Airlines, and W. A. Patterson, president of United Air Lines, were read. Solomon, beaming, is shown facing camera. The three ladies in the front row are, left to right, Mrs. Walter Swan, Mrs. Don Duff, and Mrs. Solomon. Solomon has been manager for seven years and is also vice-president and Washington representative of Boston-Maine Airways.

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Miss Jeanne Braniff, daughter of T. E. Braniff, personally directed the completely novel interior styling of Braniff Airways' new Cyclone-powered Douglas Super 'B'-Liners. A harmonious color-scheme in wine, primavera, and sepia is enhanced by large photomurals from the files of LIFE Magazine of scenes along Braniff routes to give an unprecedented effect of spaciousness.

*"From the Great Lakes
to the Gulf—"*

START the FLYING '40's with WRIGHT CYCLONES

With a new fleet of Wright Cyclone-powered Douglas "Super 'B'-Liners", Braniff Airways ushers in a decade which the line's president, Thomas E. Braniff, has aptly termed "The Flying Forties". The new 21-passenger DC-3's will augment Braniff's 'B'-Liner service with Cyclone-powered DC-2's, in which Cyclones already have logged over 4,000,000 engine miles.

The Super 'B'-Liners have been especially designed for passenger comfort. The color scheme, appointments and improved sound-proofing of the airplanes combine to give them the atmosphere of "a home in the sky".

Again, with the introduction of these ships, the Douglas DC-3 has demonstrated its outstanding position in the transportation industry. Again a major airline has re-equipped with Wright Cyclones.

WRIGHT AERONAUTICAL CORPORATION

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IT PAYS TO FLY



WRIGHT Aircraft ENGINES

AMERICAN AVIATION Victor in Suit Filed by McGraw-Hill

Infringement Complaint Lodged by Publishers of 'Aviation' Dismissed by U. S. District Court; Decision Clear-Cut

THE suit filed June 21, 1938, by McGraw-Hill Publishing Co. against American Aviation Associates Inc., charging infringement of trade mark and unfair competition, was dismissed Jan. 4 by Justice Jennings Bailey in the U. S. District Court for the District of Columbia. On Jan. 10 Judge Bailey signed final papers dismissing the suit and assessing costs against the plaintiff.

The McGraw-Hill company, publishers of *Aviation*, had contested the use of the title AMERICAN AVIATION by American Aviation Associates Inc. The case was tried in U. S. District Court before Justice Bailey Dec. 12-14. Attorneys for McGraw-Hill were Joseph Gerardi, general counsel, and Bruce Allen, of Washington. Attorneys for American Aviation Associates were Rhodes, Klepinger and Rhodes, Washington.

McGraw-Hill submitted to the court four depositions of its employees taken previously in New York City, namely those of S. Paul Johnston, editor (who resigned early in January); Leslie Neville, managing editor; George Newbold, advertising manager, and Blaine Stubblefield, Washington news representative. On the grounds that Stubblefield was a resident of Washington, the court ruled on defendant's motion that Stubblefield should testify in person. Despite the fact that Johnston was present for the duration of the trial, his testimony was given in the form of a deposition. Stubblefield was the only witness to appear in person for the plaintiff.

Testifying for American Aviation Associates was Wayne W. Parrish, president, and eight witnesses from the industry. The trial consumed one day and parts of two other days.

Circulation Figures

Part of the evidence submitted by McGraw-Hill revealed that during the two years June 30, 1937, to June 30, 1939, *Aviation* gained only 110 mail subscribers in the United States, with a slight decrease for U. S. territories and slight increases of subscribers in Canada and foreign countries. Figures showing the very extensive sales promotion costs of *Aviation* also were submitted.

AMERICAN AVIATION's witnesses, all members of the industry, testified that they had not been confused by the two publications and knew of no confusion. Each described the two publications as serving two distinct fields within the industry.

Wayne W. Parrish, president and

editor, made the following statement in connection with the decision:

"The decision in U. S. District Court is a clear-cut victory for AMERICAN AVIATION. My associates and myself were confident from the start that we had a perfect right to use the title 'American Aviation' and that we were not infringing upon the trade mark held by McGraw-Hill. It was not and never has been our intention to infringe either upon the trade mark of *Aviation* nor upon the technical news field occupied for so long by that publication. As a matter of fact, there was no duplication of editorial fields served until *Aviation* began building up its news section to compete with our new twice-monthly news magazine.

"As for the complaint of unfair competition little need be said. Two of *Aviation*'s own employees admitted in depositions that AMERICAN AVIATION is a good magazine, thus counter-acting McGraw-Hill's original complaint that American Aviation Associates was attempting to 'palm off' an inferior product upon the public. It is perhaps significant that relatively little of the original bill of complaint found its way into the trial. A more complete victory could hardly have been expected.

"It was our purpose in launching AMERICAN AVIATION June 1, 1937, to provide the aviation industry with an honestly-edited, complete, constructive news publication. We have not attempted or desired to compete with any existing aeronautical publication. The evidence accorded the magazine by the industry, the constantly increasing circulation and advertising revenue, are all indications in themselves that AMERICAN AVIATION is a good magazine.

AMERICAN AVIATION fills a definite need in the industry. We considered the suit by McGraw-Hill unnecessary, without foundation and unsportsmanlike. The plaintiff has had its trial and has received the verdict."

Judge's Decision

The decision handed down by Justice Bailey was as follows:

"The title 'Aviation' had been used by the plaintiff's predecessor in title as the name of its magazine since the year 1923, and in 1926, this title was registered as a trade mark in the Patent Office. The Plaintiff has also for many years used a slogan or sub-title containing the word 'American.'

"In 1937, the defendant began the publication of a magazine entitled 'American Aviation.' The plaintiff has brought suit for the infringement of its registered trade mark, of its common law trade mark, and for unfair competition.

"I cannot see that in itself the use of the title 'American Aviation' is an infringement of the plaintiff's trade mark. The printed titles upon the two magazines are quite different, and sufficiently so to indicate the difference to any one wishing to buy either. The plaintiff's slogan or sub-title is printed on the magazine cover in type much smaller than the main title 'Aviation,' and it is not likely that many purchasers ever read the sub-title. Of course a careless purchaser might overlook the distinction, but the purchasers of these magazines are a limited and discriminating class.

"I find that there has been no infringement of Plaintiff's trade mark, nor unfair competition on the part of the defendant."

Findings of Law

In dismissing the bill of complaint and assessing costs against McGraw-Hill, Justice Bailey signed the following findings of fact and conclusions of law:

IN THE DISTRICT COURT OF THE UNITED STATES FOR THE DISTRICT OF COLUMBIA
McGRAW-HILL PUBLISHING COMPANY, a corporation, Plaintiff,
vs.
AMERICAN AVIATION ASSOCIATES, a corporation, et al., Defendants.
Equity No. 67,466.

Findings of Fact and Conclusions of Law

FINDINGS OF FACT

This cause having come on for final hearing at this term, on issues made by the pleadings filed herein by the parties to this cause, the Court, after hearing the evidence adduced by the respective parties hereto, makes the following findings of fact:

1. That the plaintiff, McGraw-Hill Publishing Company, is a corporation organized and existing under the laws of the state of New York, having its principal place of business at 330 West Forty-second Street, New York, New York.

2. That the defendant, American Aviation Associates, is a corporation doing business in Washington, D. C., and Harrisburg, Pennsylvania; that the defendant Wayne W. Parrish is a resident of the District of Columbia and is President of the defendant corporation.

3. That the plaintiff has, for a number of years, published a magazine entitled and known as "Aviation," which it acquired in 1929 by purchase and transfer from plaintiff's immediate predecessor in ownership, Aviation Pub-

lishing Corporation; that prior to 1929 said magazine had been published for a number of years by plaintiff's predecessors under the names and titles "Aviation," "Aviation and Aeronautical Engineering," and "Aviation and Aircraft Journal"; that the plaintiff's magazine is a high-class publication dealing with the subject of aeronautics; that the plaintiff's magazine is published once a month and is sold by annual subscription at the rate of three dollars per year and on newsstands for thirty-five cents per copy.

4. That the defendant corporation, in June, 1937, began the publication of its magazine, "American Aviation," which is published twice each month and is sold by annual subscription at the rate of three dollars per year and on newsstands for fifteen cents per copy; that the defendants' magazine is a high-grade publication containing news pertaining to aviation.

5. That the plaintiff and its predecessors have, for many years, printed and displayed in small type on its magazine covers, its letterheads, and elsewhere, the slogans, "The Oldest American Aeronautical Magazine" and "The Oldest American Aircraft Magazine"; that the defendant corporation has printed and displayed in small type on its magazine covers, its letterheads, and elsewhere, the slogan, "The Independent Voice of American Aeronautics."

6. That on January 10, 1928, the plaintiff's immediate predecessor, Aviation Publishing Corporation, registered in the United States Patent Office, under the Act of Congress approved February 20, 1905 (33 stat. 724 et seq.), the trade mark "Aviation" for use on its said publication; that by an assignment dated April 8, 1929, and recorded in the Patent Office on April 24, 1929, ownership of said registered trade mark was transferred to the plaintiff corporation.

7. That the two publications involved in this litigation are purchased and read by a limited and discriminating class of readers; that comparatively few copies of each magazine reach their readers through newsstands sales, and most of the circulation of each of these magazines is through mail subscriptions; that there has been no substantial confusion between the two publications on the part of subscribers or readers thereof, there being no evidence of actual confusion on the part of any newsstand purchaser or subscriber.

8. That the two publications are not similar in cover design, format, general appearance, or content; that although each of the two magazines is designed to appeal to and does appeal to, part of the reader group reached by the other magazine, each meets a demand and fills a need not met or filled by the other magazine; that although the plaintiff's magazine contains a small news section, it is principally devoted to feature articles on technical subjects pertaining to aeronautics, whereas the defendants' magazine is primarily a news magazine and reports detailed news which the plaintiff does not cover or report in its magazine.

9. That the title "Aviation" is descriptive of the contents of the plaintiff's magazine.

10. That the word "Aviation" has been used, for a number of years, by other magazine publishers as a dominant and descriptive part of the titles for their magazines which have been sold and distributed in the United States.

11. That the defendants have acted in good faith in publishing and circulating their magazine, have not attempted to defraud the plaintiff or deceive the public, and have not been guilty of unfair competition.

CONCLUSIONS OF LAW

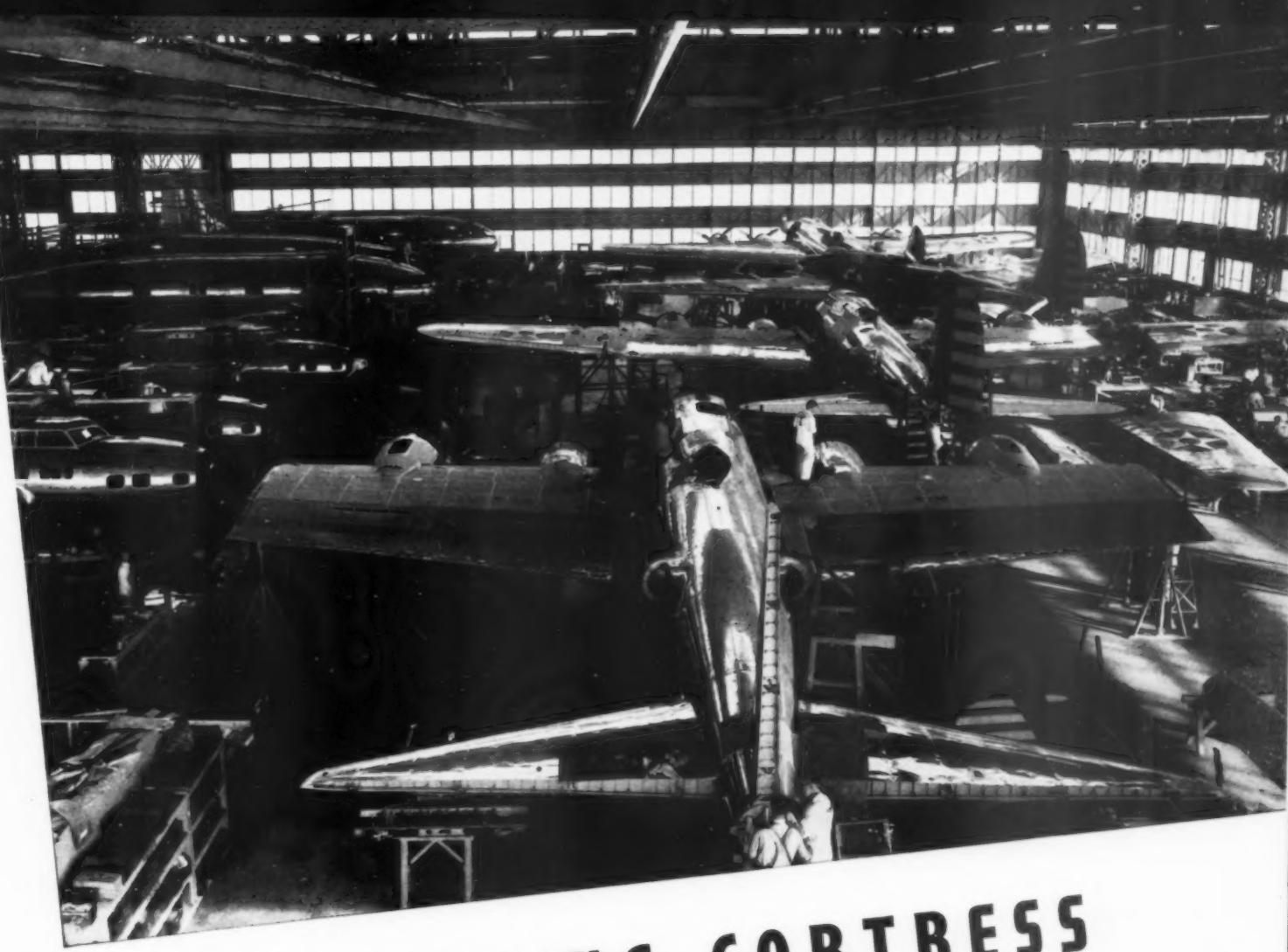
Based upon the foregoing findings of fact, the Court states its conclusions of law as follows:

1. That there has been no infringement of plaintiff's trade mark by the defendants.

2. That the plaintiff is not entitled to the relief prayed in its bill of complaint.

3. That the bill of complaint should be dismissed.

Hon. JENNINGS BAILEY
Justice



A NEW FLYING FORTRESS EVERY 4 DAYS

Every fourth working day, the huge front doors roll open at Boeing Plant No. 2, and another 22-ton 4-engine B-17B bomber emerges, ready for check flight and delivery to the United States Army Air Corps.

This schedule, which a few years ago would have seemed unreasonable for planes of this size, has now been in effect for several months. The formidable Flying Fortresses are being turned

out on a production line basis, which permits stepping up schedules to a still faster pace as required.

With a background of full experience in the 4-engine airplane field, both military and commercial, and with new advanced designs in process, Boeing is completely geared for further production of modern 4-engine types. *Boeing has always built tomorrow's air planes today!*



BOEING AIRCRAFT COMPANY

SEATTLE

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WE KEEP

These firms were served by us during 1939. Many of them have been regular customers for years. We are justly proud of "the company we keep".

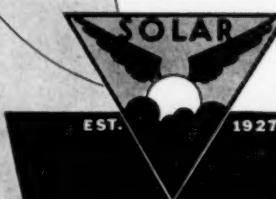
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Curtiss-Wright
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Harlow
Howard
Hughes
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Prett & Whitney
Republic
Spartan
Stinson
U. S. Army
U. S. Coast Guard
U. S. Navy
Vega
Vought-Sikorsky
Waco
Wright Aero

Aeronautical Charts

New and revised editions of aeronautical charts are now available from the U. S. Coast and Geodetic Survey, Washington, D. C., and from recognized dealers at major airports. Pilots are cautioned not to use old charts when new editions are available.

New Edition of Aeronautical Radio Direction Finding Chart

This cancels previous edition and shows numerous changes in radio facilities.

24-DF. Dec. 1939. Scale 1:2,000,000. Size 34" x 22". Latitude 31°-41° north and longitude 104°-123° west. Area about 650,000 sq. mi.

New Editions of Sectional Aeronautical Charts

These charts cancel previous editions. Scaled at 1:500,000 and sell for 40¢ each with 33-1/3% on orders (including assortments) grossing \$10 or more.

CINCINNATI, Dec. 1939. Size 20" x 44". Latitude 38°-40° north and longitude 84°-90° west. Area about 52,000 sq. mi. Patterson Field radio range added, together with changes accumulated since last edition.

LOS ANGELES, Nov. 1939. Size 20" x 45". Latitude 34°-36° north and longitude 114°-120° west. Area about 55,000 sq. mi. Accumulated changes since last edition.

Topeka Board Appointed

Topeka, Kan.—Appointment of an aviation advisory board whose duty it will be to consult with city officials on aviation problems, including operation of Municipal Airport, was announced recently by Mayor John F. Scott. Board members are Dr. Hugh D. Wilson, John W. Ripley, Bernard M. Kane, John S. Kritser Jr., and Lloyd W. Scott.

Bellanca Press Agent Chosen

Bellanca Aircraft Corp., New Castle, Del., has appointed A. Patten Wilson as New York publicity representative, it was announced Jan. 20. Wilson also handles publicity for Jacobs Aircraft Engine Co. and O. J. Whitney Inc.

Express Up 20% Over Nov. '38

Nation-wide air express shipments for November totaled 77,266, an increase of 20% over Nov. 1938, it was reported recently by the air express division of Railway Express Agency. Gross revenue for November was 23% higher than for the corresponding period the year before, the report said.

TP Distributes Calendars

New and elaborate 1940 calendars being distributed by Thompson Products Inc., Cleveland, feature reproductions of 12 paintings of late military aircraft, the work of Charles H. Hubbard. The calendar's lithographed art panels are suitable for framing.

CAA Orders 12 Cubs

The CAA's private flying section recently placed an order for 12 Cub Coupes with Piper Aircraft Corp., Lock Haven, Pa. During last August, specialists of the private flying section took delivery on nine Coupes ordered earlier in the summer.

Kearns Wins Sperry Award for Research in Propeller Vibration

Charles Maxwell Kearns Jr., in charge of the vibration department of Hamilton Standard Propellers Div. of United Aircraft Corp., East Hartford, Conn., received the Lawrence Sperry Award for 1939 at the honors night and annual dinner of the Institute of the Aeronautical Sciences in New York on Jan. 26.

The award, made yearly by the institute, carries with it a prize of \$250, and was given to Kearns for his work in the "successful application of methods of measuring propeller vibration stresses in flight."

The 25-year-old engineer explained his method: The investigator cements small graphite strips an inch or less in length to the blades under study and connects them by tiny wires cemented to the blade to an audio frequency amplifier, similar to a radio amplifier, in the plane. An electric current is then passed through the graphite strips, which, as the whirling blade vibrates, fluctuates in proportion to the vibration of the blade.

These fluctuations, magnified through the amplifier, are recorded on photographic film through an oscillograph and a study of this film reveals to the engineer the actual strains the blade under test is enduring.

Kearns joined Hamilton Standard's engineering staff in 1936 upon being graduated in engineering from Pennsylvania State College.

80-HP., 3-Place 105 for '40



A new 80-hp. three-place cabin plane, the 105, is being offered for 1940 by Stinson Aircraft Div. of Aviation Manufacturing Corp. Fifty-one refinements, including soundproofing of the cabin reducing noise level 25%, streamlining of the nose and fuselage, improved flush type design on flaps, ailerons and elevators are incorporated in the new 105.

New model retains fixed slots, NACA three-position flaps and hydraulic brakes which were introduced on the original 105 last year. Ship has a cruising speed of 111 mph. at optimum altitude, faster take-off and climb, greater service ceiling and a four-hour cruising range.

The 105's for '40 will be available with both 75- and 85-hp. Continental engines. Cruising speed of 75-hp. 105 is 107 mph. at optimum altitude.

SUMMARY OF U. S. AIR TRANSPORT OPERATIONS FOR NOVEMBER

(Compiled and Mileage Costs Computed from CAA Reports a)

	Rev.	Rev.	Pass.	Pass.	Avail. Seat	Pass.	Load	Pass.	Exp. & Frt.	Mail	Mail	Operating	Operating	Cost per b	Net Income	Net Income	Total
	Pass.	Miles	Miles	Miles	Factor	Revenues	Lb.-Miles	Revenues	Lb.-Miles	Revenue	Revenues	Expenses	Expenses	Mile Fl.	Before Inc.	Taxes	Assets
American	53,030	20,034,677	31,268,538	64.08%	\$1,030,225.11	133,884,516	379,278,099	5322,590.51	51,414,303.23	51,161,564.22	5,61	3212,290.86	58,114,336.68	58,114,336.68	532,606.87	532,606.87	
Boston-Maine	1,577	244,605	653,690	37.41%	13,572.10	349,506	1,206,146	21,325.66	36,647.84	35,698.67	.48	832.60	56,151.43	56,151.43	56,151.43	56,151.43	
Brainerd	1,828	2,404	2,404	100.00%	1,828.00	6,200	6,200	6,200.00	6,200.00	6,200.00	.47	4,819.45	790,336.42	790,336.42	790,336.42	790,336.42	
C. S.	2,354	16,608	1,578,160	58.00%	42,453.36	5,198,722	16,403,809	33,360.96	78,204.00	78,204.00	.47	1,200.40	88,857.98	88,857.98	88,857.98	88,857.98	
Continental	699	214,582	631,544	40.18%	9,833.84	4,687,308	30,390.00	40,456.50	37,431.64	37,431.64	.38	2,857.98	351,199.78	351,199.78	351,199.78	351,199.78	
Delta	3,306	801,715	1,502,240	53.37%	35,421.15	2,750,424	11,012,283	35,490.00	73,866.67	73,866.67	.40	11,327.57	330,597.60	330,597.60	330,597.60	330,597.60	
Eastern	2,311	14,111	1,400,000	48.00%	48,000.00	58,000.00	1,212,283	1,212,283	8,250.00	8,250.00	.50	60,000.00	58,338.77	58,338.77	58,338.77	58,338.77	
Island	780	207,236	852,520	24.31%	8,408.56	4,690,892	2,211,682	28,305.79	32,052.93	32,052.93	.44	8,665.50	38,341.20	38,341.20	38,341.20	38,341.20	
Inter-Island	1,684	237,571	398,570	89.61%	2,266,855	1,397,160	340,302	3,442.00	30,103.92	30,103.92	1,25	7,037.87	36,941.20	36,941.20	36,941.20	36,941.20	
Mid-Continent	1,229	1,229	1,229	100.00%	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	1,643.48	
National	998	214,920	640,360	33.56%	10,769.11	4,479,968	2,740,212	17,930.00	28,975.13	28,975.13	.40	24,844.85	19,883.08	19,883.08	19,883.08	19,883.08	
Northwest	8,192	2,846,491	7,371,757	38.61%	11,094.84	10,437,895	100,632,412	145,343.85	264,702.76	264,702.76	.56	2,306,075.47	2,306,075.47	2,306,075.47	2,306,075.47	2,306,075.47	
Penn-Central	10,101	1,217	1,217	100.00%	10,768.73	5,195,165	18,195,165	18,195,165	18,195,165	18,195,165	.48	14,949.15	1,207,954.40	1,207,954.40	1,207,954.40	1,207,954.40	
Trans.	19,120	8,011,049	18,618,263	64.40%	42,597.98	76,000,000	28,013,328	203,377	68,420.00	68,420.00	.44	1,207,954.40	32,190.41	32,190.41	32,190.41	32,190.41	
United	24,255	11,980,651	20,607,168	58.14%	609,409.41	147,870,124	443,857,699	312,122.18	981,671.66	981,671.66	1,015,872.83	.64	1,006,786.32	1,006,786.32	1,006,786.32	1,006,786.32	
Western Air Express	2,571	906,364	2,091,405	42.93%	43,121.98	12,470,438	35,747,588	67,383.99	118,262.89	118,262.89	.65	1,877.36	36,941.20	36,941.20	36,941.20	36,941.20	

a All monthly reports to the CAA are subject to revision and year-end adjustment.

b Total operating expenses divided by total plane miles; computed to the nearest half-cent.

Notes from Manufacturers

Aircraft Accessories Corp.

Glendale, Cal.—Ted Lynn, company president, announced new business totaling over \$100,000 from manufacturers for hydraulic equipment. Largest order was placed by Lockheed Aircraft Corp. for use on re-ordered Hudson bombers for England. Other new business from Lockheed includes hydraulic equipment for the YP-38 interceptor pursuit being built for the Army Air Corps.

Company has unfilled orders from Boeing, Naval Aircraft Factory, Brewster, Vought-Sikorsky, Consolidated and Vultee.

Bredouw Aeromotive Corp.

Kansas City, Mo.—Company's school for aviation mechanics and its aeronautical parts company employs 69 with a payroll nearing \$90,000 yearly. Corporation entered 1940 with a backlog of \$50,000 for parts after sales during the last year reached a high of \$350,000.

Douglas Aircraft Co. Inc.

Santa Monica, Cal.—Since June 1, 1939, orders for \$2 transports valued at approximately \$10,000,000 have been placed by airlines with Douglas. This excludes orders for 39 DC-4's announced in AMERICAN AVIATION, Jan. 15. In the first six months of 1939, Douglas delivered 37 DC-3's.

Company's statistical department indicated that Douglas transports in the U. S. and foreign nations fly 425,000 miles every 24 hrs., or a distance equal to a continuous journey of 17 times around the globe every day.

Work was started recently at the Santa Monica plant on a new factory addition of approximately 134,000 sq. ft. to cost about \$105,000, which will bring total floor area of both the main plant and the El Segundo division to 2,300,000 sq. ft.

Engel Aircraft Specialties

Escondido, Cal.—Company recently announced installation of a 3,000-lb. iron furnace for making iron and steel dies for its drop hammers, spinning machine and hydraulic press. Engel has developed a system of lining dies with polished metals effecting a saving in expense of polishing and cleaning necessary in the case of zinc dies.

Fairchild Aviation Corp.

Jamaica, N. Y.—Unfilled orders for navigation instruments, aerial cameras and aerial surveys were \$2,002,470.40 as of Nov. 30, 1939, comparing with \$951,623.22 as of Nov. 30, 1938, representing an increase of 110%.

Howard Aircraft Corp.

Chicago, Ill.—During the last six months of 1939, Howard increased number of personnel approximately 400% and twice as much factory and office space is now in use as compared to facilities of July 1939.

A special Howard recently delivered to Wallace Berry, film actor, was equipped with a full-length 6-ft. bed, arranged to provide normal cabin space when bed is not in use. It is believed to be the first plane of its type to be equipped.

Kelllett Autogiro Corp.

Philadelphia, Pa. — Unfilled orders amounted to \$252,720 at the close of business Dec. 31. Net sales for 1939 were \$431,718, compared with \$322,031 in 1938. Included in the '39 figures were sales of two autogiros. Manufacture of aircraft parts, a major production activity of the corporation, comprised the remainder of the sales total, according to R. G. Kelllett, executive vice president.

Sales for the last six months of '39 were \$336,848, against \$49,107 in the last half of '38. On June 30, company reported backlog of \$261,412.

Kinner Motors Inc.

Glendale, Cal.—During recent weeks orders for aircraft engines and spare parts from several foreign governments aggregated approximately \$110,000, bringing the backlog to about \$250,000. Facilities at the plant now permit production of 150 engines monthly, according to Earl Herring, general manager.

Additional equipment has been added and further expansion now contemplated will give the plant a capacity of 3,000 engines per year in the 100-750-hp. class. As part of its improvement program, Herring declared that Kinner now has the equal of the finest engine test facilities and the largest dynamometer on the Pacific coast.

Lockheed Aircraft Corp.

Burbank, Cal.—Company is at work on its late order for 100 bombers for the Australian government. A recent estimate indicated that 7,286 employees are busy in the factory, engineering and executive departments.

Menasco Manufacturing Co.

Los Angeles, Cal.—A. E. Shelton, president, recently announced completion of a contract with Northill Co. whereby Menasco will take over the sales rights on the British Civic Diesel engine from that company.

Payroll now includes 215 employees, 55 of whom were added in recent weeks.

Pioneer Parachute Co.

Manchester, Conn.—Weekly production is 20 completed and inspected parachutes. Company expects soon to boost this amount to 30 weekly.

Piper Aircraft Corp.

Lock Haven, Pa.—October production totaled 231 Cubs, exceeding the previous monthly high in mass production established in Aug. 1939 when 215 Cubs were manufactured.

Total of 197 Cubs were manufactured and sold during November, production for that month representing a decrease of 34 planes below the October figure.

Production for the first 11 months of 1939 reached 1,718 units.

Porterfield Aircraft Co.

Kansas City, Mo.—Since mid-1939, when the Porterfield 50 and 65 were approved, company has been turning

Fairchild Offers 2 '40 Models



New 1940 models of the Fairchild 24, announced by Fairchild Aircraft Div. of Fairchild Engine & Airplane Corp., Hagerstown, Md., incorporate a price reduction in one model and increased power and performance in the other. Instead of four models offered in 1939, Fairchild now offers the Ranger-powered model incorporating a horsepower increase to 175 hp. and the Warner-powered model at a substantial reduction in price amounting to over \$850, being priced at \$5,995, flyaway. The latter ship, known as the Standard 24, is powered by a 145-hp. Warner Super Scarab. The Deluxe 24, powered by the 175-hp. Ranger engine, is priced at \$7,230, flyaway. Detailed performance figures will be available soon.

NEW YORK STOCK EXCHANGE

Week Ended Jan. 13

	Net	High	Low	Change	Sales	Net	High	Low	Change	Sales
American Airlines	45	41 ¹ ₂	—	—2	6,500	45 ¹ ₂	41 ¹ ₂	—	+3 ¹ ₂	7,400
Aviation Corp.	7	6 ³ ₄	—	—1 ₂	13,100	6 ³ ₄	6	—	+1 ¹ ₂	23,400
Bendix Aviation	30	27 ¹ ₂	—	—2	19,100	28 ¹ ₂	26 ¹ ₂	—	+1 ¹ ₂	14,700
Boeing Airplane	24 ¹ ₂	21 ³ ₄	—	—2 ₁ ₂	10,900	24 ¹ ₂	21 ³ ₄	—	+1 ¹ ₂	19,500
Consolidated Aircraft	29	26	—	—2 ₁ ₂	6,100	26 ¹ ₂	25 ¹ ₂	—	+1 ¹ ₂	5,200
Continental Motors	3 ¹ ₂	3 ¹ ₂	—	—2	29,200	3 ¹ ₂	3 ¹ ₂	—	+1 ¹ ₂	53,400
Curtiss-Wright A	29 ¹ ₂	28 ¹ ₂	—	—1	74,400	29 ¹ ₂	28 ¹ ₂	—	+1 ¹ ₂	5,200
Douglas Aircraft	80 ³ ₄	76	—	—3 ¹ ₂	11,500	79 ¹ ₂	75	—	+1 ¹ ₂	7,400
Eastern Air Lines	30 ¹ ₂	27 ¹ ₂	—	—2 ¹ ₂	10,600	28 ¹ ₂	26 ¹ ₂	—	+1 ¹ ₂	12,700
Ex-Cel-O	23 ¹ ₂	21 ¹ ₂	—	—1 ¹ ₂	8,000	20 ¹ ₂	19 ¹ ₂	—	+1 ¹ ₂	2,600
Lockheed Aircraft	30 ¹ ₂	28 ¹ ₂	—	—2 ¹ ₂	12,600	30 ¹ ₂	28 ¹ ₂	—	+1 ¹ ₂	15,000
Glenn L. Martin	40	36 ¹ ₂	—	—2 ¹ ₂	12,300	37 ¹ ₂	35 ¹ ₂	—	+1 ¹ ₂	12,400
N. American Aviation	25 ¹ ₂	23 ¹ ₂	—	—2 ¹ ₂	29,500	24 ¹ ₂	22 ¹ ₂	—	+1 ¹ ₂	24,900
Pan American Airways	19 ¹ ₂	17	—	—2 ¹ ₂	7,100	18 ¹ ₂	17	—	+1 ¹ ₂	5,100
Sperry Corp.	44 ³ ₄	42 ¹ ₂	—	—1 ¹ ₂	11,200	44 ³ ₄	42 ¹ ₂	—	+1 ¹ ₂	8,500
Thompson Products	29 ¹ ₂	28 ¹ ₂	—	—1 ¹ ₂	2,400	29 ¹ ₂	27 ¹ ₂	—	+1 ¹ ₂	1,900
TWA	13 ³ ₄	12 ¹ ₂	—	—1 ¹ ₂	8,400	13 ³ ₄	12 ¹ ₂	—	+1 ¹ ₂	15,100
United Aircraft	47	43 ¹ ₂	—	—2 ¹ ₂	17,800	46 ¹ ₂	43 ¹ ₂	—	+1 ¹ ₂	14,700
United Air Lines	16 ³ ₄	14 ¹ ₂	—	—2 ¹ ₂	32,000	15 ³ ₄	14 ¹ ₂	—	+1 ¹ ₂	21,000
Wright Aeronautical	111	108	—	—1	120	108 ¹ ₂	106 ¹ ₂	—	+1 ¹ ₂	300

out a model each working day. Employment is 82 with a monthly pay-off of \$10,000.

Rearwin Aircraft & Engines

Kansas City, Kan.—Company enjoyed the busiest fourth quarter in its history, forcing enlargement of the factory. Plans are being made to erect a metal building in which to carry on all assembly work.

Corporation has its biggest backlog in history and is increasing its personnel

which now numbers about 100, twice the number employed a year ago.

Thompson Products Inc.

Cleveland, Ohio.—It is indicated that first quarter earnings for 1940 will compare favorably with preceding quarter and with 1939's corresponding period when net profits were \$325,156.

With a line of 461 different aircraft parts, company aircraft division is booked through 1940.

Timm Aircraft Corp.

Fortnightly Financial Review

Menasco, Mid-Continent, American Stock Offering Data Filed at SEC

Menasco Manufacturing Co. and Mid-Continent Airlines, Inc. filed registration statements with the Securities & Exchange Commission in the fortnight ended Jan. 24, with net proceeds expected to aggregate nearly \$500,000. In addition, a western tool manufacturer which produces equipment for several leading aircraft companies registered an offering to net about \$197,400. American Airlines announces private sale of stock with net proceeds of nearly \$2,000,000 in a report to the New York Stock Exchange.

Menasco's dearth of working capital will be bolstered for the purchase of new plant equipment, while Mid-Continent expects to acquire partial funds for its three new Lockheed Lodestars to be delivered early this year.

Summaries of the registration statements, and of current reports filed in the two-week period, follow:

Menasco Manufacturing Co.

Net proceeds of approximately \$345,000 are expected from the sale of 300,000 shares of \$1-par common stock registered. Offering will be made about Feb. 5. Principal underwriter is Sutro & Co., Los Angeles. Public price will be \$1.50 a share, with commissions varying to maximum of 30 cents.

Within 10 days after effective date company will offer entire registration to stockholders of record in form of 21-day subscription warrants in ratio of one right to one new share for each two shares held, at price of \$1.50. Maximum of 25,000 shares will be offered certain officers and employees at \$1. Sutro & Co. has the right to purchase from Menasco from time to time within five months, for its own account, shares remaining unsold after expiration of warrants and after creditors and others approached by Menasco have been allowed opportunity to purchase. On re-sale, underwriter must remit to Menasco such amount as is in excess of a gross profit of 20%.

The SEC data reveal that in year ended June 30, 1939, deliveries of plane engines and parts totaled \$53,544, and in six months ended Dec. 31 such deliveries were \$31,363. At year-end, backlog of aircraft engines and parts, exclusive of the Unitwin orders, was more than \$163,000, with delivery expected by May, 1940.

Up to Jan. 9, 1940, company had borrowed \$107,500 of a total authorization of \$150,000 from Bank of America National Trust & Savings Assn. Machinery and Equipment valued at \$75,000 has been ordered, with about \$125,000 more to be spent shortly, not including equipment for producing castings by the Antioch Foundry Co. process. This project involved about \$10,000 initial investment, and another similar amount will be expended if tests are favorable. Experimental work will start in March.

Completion of the Unitwin (2 Model CES engines, side by side, geared to a single propeller shaft) has been delayed by engineering difficulties. The power plant has been re-designed to produce about 660hp at take off and 800hp at cruising instead of 520hp originally contemplated.

Following failure to produce on schedule the beginning of an order for 1,000 Covic diesel engines (14-18hp, non-aeronautical), Menasco has purchased the license of Northill Co., Inc., from Covic Diesel Engine Co., of England to manufacture, use and sell such engines in U. S. and British Columbia. Menasco paid \$10,000 to Northill and delivered promissory note in amount of \$66,648. In addition, Menasco will pay \$10 to \$15 per engine for 2,000 manufactured by it subsequent to the first 1,500. Upon arrival in this country of four new and improved engines built by the parent company, Menasco will continue with development.

Company is developing a 6-cylinder engine similar to Model CES, but without supercharger, for medium training planes, to be rated about 230hp. Also planned is a development of V-type, 12-cylinders, of from 700hp to 1200hp.

A. E. Shelton is president (elected Oct. 19); Robert E. Gross is vice presi-

dent; Cyril Chappellet is assistant secretary; Glenn Shroder is treasurer; Orville E. Mohler is sales manager.

Mid-Continent Airlines, Inc.

Net proceeds are estimated at \$151,000 from sale of 50,000 shares of \$1-par common stock, underwritten by Murdoch, DeArth & White, Inc., Des Moines; George F. Ryan & Co., St. Louis, and Kalman & Co., St. Paul, which companies will exert best efforts to sell to public at \$1 a share, receiving commission of 70 cents plus reimbursement of expenses to extent of \$2500. There is no firm commitment.

Upon public offering date, Murdoch will establish an account, managing it until all stock registered is distributed or until contract with the airline is canceled, whereupon account will be liquidated and any remaining funds will be distributed 30% to Kalman, 35% to Murdoch, 35% to Ryan & Co.

Total of 15,000 shares will be reserved for and sold to Kalman or to dealers it designates; 17,500 for George F. Ryan & Co., or its designated dealers; 17,500 shares for Murdoch. Murdoch shall have right for the common account to make purchases and sales of any class of securities of the company, in open market or otherwise, for either short or long account, provided that at no time shall net commitment for either short or long account exceed 5,000 shares common.

Registrant has right, on 10 days notice, to cancel the agreement respecting all shares not sold by underwriters prior to end of such 10-day period in event that (1) within 20 days after public offering date underwriters shall not have sold 30,000 shares or (2) within 40 days after such date underwriters shall not have sold all of the 50,000 shares.

Company is negotiating for a \$150,000 bank loan, which, with proceeds from stock sale, would be used to purchase the 3 Model 18 Lockheed transports to be delivered about Mar. 15, amounting to \$235,500, and to purchase other equipment for such planes, including 3 Pratt & Whitney engines, Hamilton Standard propellers, Bendix radio, Goodrich de-icing boots, etc.

In year ended June 30, 1939, net loss was \$27,240; in 5 months ended Nov. 30, 1939, net income was \$34,765. Total assets Nov. 30 were \$522,992; current assets \$170,273; current liabilities \$51,139.

Plumb Tool Co., Inc.

Company, located in Los Angeles, registered \$225,000 first mortgage 6% bonds, due Dec. 1, 1949, with common stock purchase warrants attached, and 22,500 shares of \$1-par common, reserved for conversion. Underwriter is White, Wyeth & Co., who will purchase the bonds. Proposed maximum offering price is \$1,000 plus accrued interest from Dec. 1, 1939, to delivery. Registrant is to receive 90% of principal amount or \$202,500, plus accrued interest. Net proceeds are estimated at \$197,398, and will be used to increase working capital and retire debt.

Customers of company include Pratt & Whitney, Boeing, Douglas, Consolidated, and Army and Navy. C. H. Williams is chairman; M. B. Pendleton is president. On Oct. 31 assets were \$827,691; current assets \$417,931; current liabilities \$276,093.

(Note: Details of these registration statements have appeared in AMERICAN AVIATION DAILY, published six days a week in Washington by AMERICAN AVIATION ASSOCIATES, INC., Earle Building, to whom inquiries on detailed financial matters in the industry should be addressed.)

CURRENT REPORTS

American Airlines, Inc.

American Airlines, Inc., has registered 50,000 shares of \$10-par capital stock on the New York Stock Exchange, with sale expected to be made to 13 individuals and companies at \$36.50 a share, with net proceeds estimated at \$1,810,000. Total of \$872,187 will be used to reimburse company's treasury for the amount paid Dec. 21, 1939, to retire before maturity company's 5-year, 4½% non-convertible debentures previously outstanding; and balance of proceeds will be used to pay in part the cost of new aircraft contracted for 1940 and 1941 delivery, and for working capital.

Balance of company's indebtedness to the RFC, \$41,285, was paid in December.

St. Louis Trainer Tested



The Army Air Corps' latest primary training ship to be tested at Wright Field, Dayton, O., is the single engine, two-place YPT-15, manufactured by St. Louis Aircraft Corp., St. Louis, Mo. On June 14, 1939, the War Dept. released an order to the corporation for a quantity of these ships, equivalent to the company's PT-1W, at a total of \$139,419.

The YPT-15 is powered by a seven-cylinder Wright Whirlwind (R-760), rated at 225 hp. with 1,900 rpm. for sea level operation. Trainer is conventional biplane with open cockpit. Wings are fabric covered with metal spars and ribs; fuselage is of steel tube construction, covered with metal to the rear of the cockpit, aft of which is of monocoque construction. Control surfaces are of metal and fabric covered.

Hamilton Standard propeller is ground adjustable, 8 ft. 6 in. in diameter. Approximate gross weight is 2,766 lbs. Wing span is 33 ft. 10 in.; length, 24 ft. 11 1/2 in.; height, 9 ft. 3 1/2 in.; chord, 4 ft. 8 1/2 in. (Official photograph, U. S. Army Air Corps).

FINANCIAL REPORTS

Lockheed Aircraft Corp.

Net income of more than \$3,140,000 for the year ended Dec. 31, 1939, is announced by Lockheed Aircraft Corp., after taxes, depreciation and amortization but before audit. This is about \$4.05 each on 775,000 outstanding common shares. The 1938 net income was \$442,111.

First six months earnings, held down by preparations for increased production, were \$508,860, or 66 cents, but in the second period output per month averaged almost \$3,500,000. Net sales in 1939 were \$35,303,444 against \$10,274,503 in 1938. Backlog on Jan. 15 was more than \$40,000,000, and "several large orders are now being negotiated." Robert E. Gross, president, stated. Nearly 20% of company's orders were for commercial craft.

Fairchild Engine & Airplane Corp.

Company reports net income for 10 months ended Oct. 31 of \$180,940, including \$161,543 net income from sale of Duramold (plastic) license, and after depreciation, interest, Federal income taxes and deduction of \$151,994 unabsorbed development cost on abandoned projects. This is equal after dividend requirements on 5712 shares of \$6 convertible preferred stock to 19 cents each on 829,732 \$1-par common shares.

Vega Airplane Co.

Net income in 11 months ended Nov. 30, 1939, was \$84,186, against net loss in year ended Dec. 31, 1938, of \$19,915. Although production of company's Vega Starliner, equipped with two Menasco engines geared to single propeller shaft (Unitwin) has been delayed, increased earnings have resulted from increased engineering services and fabrication of plane parts for other firms. Gross sales in the 11 months were \$531,851. Balance sheet for Nov. 30 shows assets of \$921,384; current assets \$313,615; current liabilities \$145,272. Of 460,000 shares of \$1.50 par, there are outstanding 401,796.

NLRB-Kirkham Order

An order based upon an agreement of settlement, and a supplemental agreement of settlement, directing Kirkham Engineering and Manufacturing Corp., Farmingdale, N. Y., to stop discouraging membership in Local 661, Aircraft, United Automobile Workers (CIO) or any other labor organization by discrimination against employees with regard to hire, tenure or any condition or incident of employment was announced recently by the National Labor Relations Board.

GOVERNMENT CONTRACTS

(Awards of \$10,000 and Over)

Release Date Shown

AIRCRAFT

Fleetwings Inc., Bristol, Pa., 1/11, airplane, \$22,500 (CAA).

ENGINES, PARTS, ACCESSORIES

Hamilton Standard Propeller Div., United Aircraft Corp., E. Hartford, Conn., 1/11, propeller & control assemblies, \$400,520 (Air Corps).

Wright Aeronautical Corp., Paterson, N. J., 1/11, spare parts for airplanes, \$124,566.65 (Air Corps).

B. G. Corp., New York, N. Y., 1/11, spark plugs, \$11,412.80 (Air Corps).

Goodyear Tire & Rubber Co. Inc., Akron, O., 1/12, wheel & brake assemblies, \$373,126.26 (Air Corps).

Pump Engineering Service Corp., Cleveland, O., 1/12, hydraulic units for fuel pump drive, \$23,400 (Air Corps).

Pump Engineering Service Corp., Cleveland, O., 1/22, fuel pump, \$2,605.70 (Air Corps).

Kline Manufacturing Co., Columbus, O., 1/22, instrument field testing set assemblies & pilot static head fixtures, \$22,750 (Air Corps).

Longines Wittnauer Watch Co. Inc., New York, N. Y., 1/22, navigation watches & cases assemblies, \$48,119.96 (Air Corps).

Eclipse Aviation Div. of Bendix Aviation Corp., Bendix, N. J., 1/22, inertia starters, \$235,712 (Navy).

MISCELLANEOUS

Air Cruisers Inc., Clifton, N. J., 1/10, life preserver vests & CO₂ cylinders, \$67,-480 (Air Corps).

B & O Manufacturing Co., Baltimore, Md., 1/10, aircraft mechanics' suits, \$164,-150 (Air Corps).

Hoover Rubber Co. Inc., Watertown, Mass., 1/10, winter flying caps, shoes & gloves, \$18,050 (Air Corps).

Eastman Kodak Co., Rochester, N. Y., 1/10, photo film & paper, \$26,059.43 (Air Corps).

Shell Oil Co. Inc., New York, N. Y., 1/10, aircraft engine fuel, \$281,596.28 (Air Corps).

Shell Oil Co. Inc., St. Louis, Mo., 1/10, aircraft engine fuel, \$592,594.70 (Air Corps).

Shell Oil Co. Inc., San Francisco, Cal., 1/10, aircraft engine fuel, \$448,962.40 (Air Corps).

Socony-Vacuum Oil Co. Inc., New York, N. Y., 1/10, aircraft engine fuel, \$21,-873.64 (Air Corps).

Municipal Airport Commission, Charlotte, N. C., 1/10, aircraft engine fuel, \$12,900 (Air Corps).

Standard Oil Co. Inc. (Ky.), Louisville, Ky., 1/10, aircraft engine fuel, \$188,902 (Air Corps).

Standard Oil Co. of Louisiana, New York, N. Y., 1/10, aircraft engine fuel, \$22,-834 (Air Corps).

Standard Oil Co., Chicago, Ill., 1/10, aircraft engine fuel, \$29,420 (Air Corps).

Standard Oil Co. of California, San Francisco, Cal., 1/10, aircraft engine fuel, \$127,078.50 (Air Corps).

Standard Oil Co. of New Jersey, New York, N. Y., 1/10, aircraft engine fuel, \$301,120 (Air Corps).

New Mexico Airport Corp., Kansas City, Mo., 1/10, aircraft engine fuel, \$13,950 (Air Corps).

Oklahoma City Air Terminal, M. A., Oklahoma City, Okla., 1/10, aircraft engine fuel, \$20,300 (Air Corps).

Humble Oil & Refining Co., Houston, Tex., 1/10, aircraft engine fuel, \$568,365.20 (Air Corps).

Amarillo Airport Corp., Amarillo, Tex., 1/10, aircraft engine fuel, \$14,000 (Air Corps).

E. Kinsey Co., Cincinnati, O., 1/10, shapers, \$57,215 (Air Corps).

Shell Oil Co. Inc., San Francisco, Cal., 1/11, aircraft engine fuel, \$28,088 (Air Corps).

Standard Oil Co. of California, San Francisco, Cal., 1/11, aircraft engine fuel, \$63,702.50 (Air Corps).

Link Aviation Devices Inc., Binghamton, N. Y., 1/11, link trainer assemblies, \$303,668 (Air Corps).

Fairchild Aerial Camera Corp., Jamaica, N. Y., 1/12, camera magazine assembly, \$20,000 (Air Corps).

Continental Electric Co. Inc., Newark, N. J., 1/15, electric power plant, \$47,631.50 (Air Corps).

Homelite Corp., Port Chester, N. Y., 1/15, electric power plant, \$29,050 (Air Corps).

Ideal Electric & Manufacturing Co., Mansfield, O., 1/16, primary cubicles for night lighting installations, \$57,602 (Air Corps).

Ohio Seamless Tube Co., Selby, O., 1/16, chrome molybdenum & nickel seamless steel tubing, \$2,040.24 (Air Corps).

Aero Leather Clothing Co. Inc., Beacon, N. Y., 1/19, flying jackets, \$24,521 (Air Corps).

Jesop Steel Co., Washington, Pa., 1/19, steel sheets, \$26,075.96 (Air Corps).

Sidney Machine Tool Co., Sidney, O., 1/19, lathes, \$88,140 (Air Corps).

American Steel & Wire Co., New York, N. Y., 1/19, cable & splicing material, \$11,646.49 (Naval Air Station).

Socony-Vacuum Oil Co. Inc., New York, N. Y., 1/22, aircraft engine fuel, \$13,-768, option to be exercised if & when needed (Air Corps).

Humble Oil & Refining Co., Houston, Tex., 1/22, aircraft engine fuel, \$18,450, option (Air Corps).

Shell Oil Co. Inc., San Francisco, Cal., 1/22, aircraft engine fuel & lubricating oil, \$12,599.30, option (Air Corps).

Flotation Systems Inc., Los Angeles, Cal., 1/22, gasoline storage & distributing system, \$174,600 (Navy).

Castile Gate Hosiery & Glove Co. Inc., New York, N. Y., 1/22, mechanics' winter caps, \$12,225 (Air Corps).

Kuy Products Co., Detroit, Mich., 1/22, windlass parts, tow target switch conduit, etc., \$10,899 (Air Corps).

Folmer Grafex Corp., Rochester, N. Y., 1/22, repair & conversion of C-2A ground camera into C-3 ground camera, \$21,100 (Air Corps).

Lufkin Rule Co., Saginaw, Mich., 1/22, calipers, rules, dividers, etc., \$14,321.94 (Air Corps).

George Worthington Co., Cleveland, O., 1/22, assorted files, \$11,916.38 (Air Corps).

Barnard Aviation Equipment Co. Inc., Newark, N. J., 1/22, services to finish machine castings, \$14,153.33 (Navy).

Fairchild Aerial Camera Corp., Jamaica, N. Y., 1/23, aircraft camera, \$190,272 (Air Corps).

American Gas Accumulator Co., Elizabeth, N. J., 1/23, floodlight lamp assembly, \$62,310 (Air Corps).

Agency Enters Aviation

Godchaux & Mayer Ltd., general insurance agents at 817 Union St., New Orleans, La., have announced the establishment of an aviation department "for the accommodation of agents in the sale and servicing of aviation insurance in all of its forms." Company's territory includes the states of Louisiana, Mississippi and Alabama.

Bell Develops Adapter

Bell Aircraft Corp., Buffalo, N. Y., has recently developed a new and radically different type of machine gun adapter for use on standard Navy and Army .50 and .30 caliber machine guns. Use of the adapter is said to so improve the aim and ease of operation of the guns that both the Army Air Corps and Navy Bureau of Aeronautics have accepted the .50 caliber adapter as standard equipment for installation involving a flexibly mounted machine gun.

Stock Holdings

Following is official summary of transactions and holdings of officers, directors and principal stockholders of corporations with equity securities registered, filed with the SEC Nov. 11 to 30. Unless otherwise indicated transactions were made in October and holdings are as of the end of that month:

Aero Supply Mfg. Co. class B—Leclanche Moen, director, holds none directly; through partnership (property interest not shown) decreased 200 to 27,846. Henry A. Rudkin, director, holds none directly; through partnership (property interest not shown) decreased 200 to 27,846.

Air Investors Inc.—Emlen S. Hare, director (Sept. 1939), holds none directly; through partnership A holds 376 common and 265 convertible preferred, and decreased warrants for common 703 to 35; through partnership B disposed of all of 2,384 warrants for common.

American Airlines Inc. common—C. R. Smith, officer & director, sold 200 and gave away 1,000, leaving 2,570.

Beach Aircraft Corp. common—Charles G. Yankee, officer & director, decreased 100 to 200.

National Aviation Corp. common—Charles Hayden Foundation, beneficial owner decreased 1,000 to 54,649.

North American Aviation Inc. common—J. H. Kindelberger, officer, decreased 400 to 13,000.

Republic Aviation Corp. common—A. P. de Seversky, director, decreased 14,000 to 49,429.

Roosevelt Field Inc. common—Grover L. Loening, director, increased 1,000 to 33,000.

Transcontinental & Western Air Inc. common—Hughes Tool Co., beneficial owner, increased 7 to 157,700.

United Aircraft Corp. common—Joseph F. McCarthy, officer & director, decreased 100 to 3,200. Raycroft Walsh, officer & director, decreased 500 to 1,000.

Western Air Express common—Alvin P. Adams, officer & director, decreased 1,000 to 9,550.

Sioux City Job Eliminated

Sioux City, Ia.—Elimination of the job held by Frank Mulhall, who has been supervising construction work at the municipal airport near Sergeant Bluff, was announced recently. Doubt was expressed whether an airport manager would be selected for some time. The airport is open for private planes.

Lockheed Aircraft Corp.—Lawrence C. Ames, director, decreased 400 to 6,000. Cyril Chappellet, officer & director, increased 1,000 to 11,607.

Glenn L. Martin Co. common—Myron G. Shook, officer & director, decreased 100 to 200.

National Aviation Corp. common—Charles Hayden Foundation, beneficial owner decreased 1,000 to 54,649.

North American Aviation Inc. common—J. H. Kindelberger, officer, decreased 400 to 13,000.

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Pratt & Whitney Gets \$3,005,600 AC Order

Award of \$3,005,600 for aircraft engines to the Pratt & Whitney Division of United Aircraft Corp., E. Hartford, Conn. was announced by Louis Johnson, assistant secretary of war, Jan. 24. Contract includes Model R-2800-7 and Model R-1340-51 engines for installation in pursuit and observation planes.

Goodyear to Fabricate McKinley Pneumatic Floats; TC Granted

Having received type certificate 126 from the CAA, McKinley Pneumatic Floats, model PF-2, will be manufactured by Goodyear Tire & Rubber Co. under CAA production certificate 37.

The floats, weighing only 42 lbs. each, were designed and approved



for planes grossing 1,475 lbs., but they are said to be practical for installation on planes as light as 1,000 lbs. gross.

Goodyear and McKinley spent 18 months in developing, designing, flight testing and preparing engineering data for this model since the



pneumatic principle was first demonstrated in flight in June 1938.

A float with a greater displacement than would be necessary was selected by the designers so that certain applied pneumatic principles could be projected and made applicable to larger floats and other flotation gear.

Models of pneumatic floats adaptable to water craft in several weight categories are being designed and will be flight tested within a year, it was said.

Goodyear Subsidiary Formed to Replace Zeppelin Corporation

Akron, O.—Creation of Goodyear Aircraft Corp. as a wholly-owned subsidiary of Goodyear Tire & Rubber Co., to take over all activities and personnel of Goodyear-Zeppelin Corp., was announced recently by company officials.

In addition to the manufacture of lighter-than-air craft, new corporation will enlarge its field of operations to include the manufacture of various parts for airplanes, it was said.

These new products will be fabricated from light alloys, such as are used in framework of rigid airships and will be sold direct to aircraft manufacturers.

Articles of incorporation for Goodyear Aircraft Corp. were filed in Delaware (AMERICAN AVIATION, Jan. 15). Authority was granted to issue 1,000 shares of no par value stock.

Three-Place Rearwin Ready



The new three-place Rearwin Cloudster, similar to the side-by-side model with the exception of a slightly increased fin area, has been introduced as model 8135 by Rearwin Aircraft & Engines Inc., Kansas City, Kan. Developed from the recently approved two-place models, 8090 and 8125, arrangement was made in the new model for a third occupant across the ship immediately behind the two front seats.

When no third passenger is carried, there is a space 30 by 19 by 28 in. for luggage. Right front seat back folds forward, and left seat back is rigidly installed, affording protection to the pilot.

Slope of the windshield has been increased, and the speed of the ship due to this and other minor refinements has been increased slightly over the two-place models while the landing speed remains the same. Model 8135 is powered by a 120-hp. Ken-Royce engine.

Venezuela, Stearman Sign Trainer Contract

The Venezuelan government has signed a contract with Stearman Aircraft Div. of Boeing Airplane Co., Wichita, Kan., for primary training planes valued at \$50,000. It was learned recently. Delivery will be made in four to six months, according to J. E. Schaefer, vice president and general manager of the division.

The trainers, similar to those used by the U. S. Army and Navy, will be used by both the Venezuelan Army and Navy.

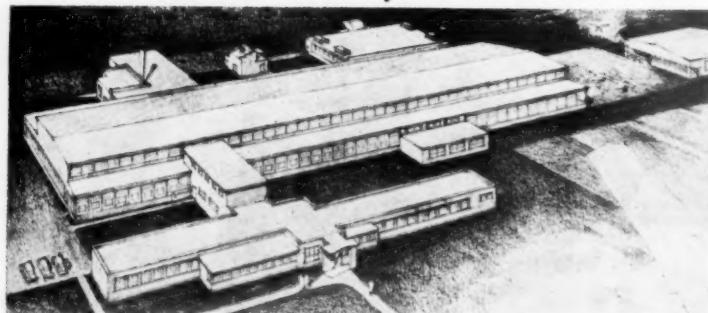
Stearman has been carrying on negotiations with representatives of three other South American countries, it was said.

Stinson Sells 264 105's in 7 Months, 47 Reliants in '39

During the period July to Dec. 31, 1939, Stinson Aircraft Div. of Aviation Manufacturing Corp., Wayne, Mich., sold 264 model 105's, all equipped with 75-hp. Continental engines, according to W. A. Mara, vice-president. Production on the 105 was started in July, although about five initial demonstrators were delivered in June.

During 1939 Stinson delivered 47 Reliants, including the 260- and 290-hp. Lycoming, 350- and 450-hp. Wright and 450-hp. Pratt & Whitney Wasp Jr. engines.

Aeronca Factory and Offices



Ground was broken on Dec. 15 for a new factory at Middletown (O.) Municipal Airport for Aeronautical Corporation of America, now located at Lunken Airport, Cincinnati, O. Company expects to be producing Aeronca planes in the new plant by Mar. 1.

A factory of approximately 37,500 sq. ft. is being built, in addition to an office, an engineering building, a hangar, paint shop, experimental room, raw material storage room and other incidental buildings. Plant will be considerably larger than the one occupied in Cincinnati.

Advanced S-T Version, the STM-2, Introduced for 1940 by Ryan Co.

An advanced version of its S-T, designated the Ryan STM-2, has been introduced in the 1940 low-wing military trainer field by Ryan Aeronautical Co., San Diego, Cal.

Principal change in external appearance of the new Ryan is the placing of the upper longerons around the cockpits on the outer side of the fuselage skin instead of internally as was the previous practice.

Through this change, and by increasing size of the cutouts, cockpits in the new S-T have been made larger, providing easier entrance and exit for both student and instructor. Length inside the cockpits also has been increased and instrument panels have been set further forward.

Efficiency of the craft has been improved for training purposes by making the parachute-type seats adjustable to accommodate different pilot personnel, and by providing toe-operated brakes in both cockpits.

Front and rear seats have been made adjustable both as to length and height. A parking brake, operated from the rear cockpit, is another added feature.

As with previous Ryan S-T trainers provision is made for installation of either a Menasco C-4 inline 125-hp. engine, or the supercharged C4-S which develops 150 hp.

First of the 1940 models are now off the production line and are ready for delivery to the Army Air Corps to be used in flying cadet training.

For Air Corps use the STM-2 is designated PT-20.

Woodson, Schoellkopf Promoted by Bell Corp.

O. L. Woodson, who in September was appointed chief executive engineer of Bell Aircraft Corp., Buffalo, N. Y., has been promoted to assistant general manager of the corporation. He will continue to direct the engineering department in addition to work entailed by his promotion.

J. F. Schoellkopf IV has been promoted from manager of Bell's contract department to sales manager, it was announced Jan. 18. He has been associated with Bell since incorporation of the company in 1935.

Bruckner Reelected Waco Aircraft Head

Clayton J. Bruckner recently was reelected president of Waco Aircraft Corp., Troy, O., by the board of directors following the annual meeting of stockholders.

All directors were reelected.

La Porte Plane Tested

La Porte, Ind.—The first plane manufactured by Aircraft Corp., a high-wing two-place cabin monoplane powered by a Franklin engine, was test flown recently at Municipal Airport by John J. Donnellan, treasurer of the corporation. An experimental license has been granted on the plane by CAA Inspector Burleigh Putnam Jr. It was reported that Aircraft Corp. has orders on hand for five ships of this type.

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